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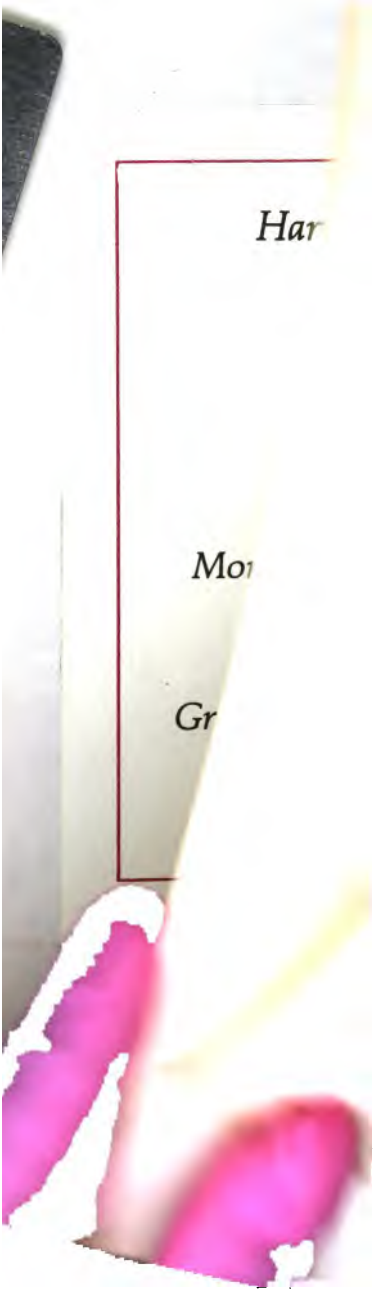
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Vol. IV. ~~FEBRUARY~~ January No. 2

THE

Michigan Teacher

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A MONTHLY JOURNAL,

V

DEVOTED TO

EDUCATIONAL INTELLIGENCE,

7645

TO THE PRACTICAL WORK OF THE SCHOOL ROOM,

AND TO THE

PHILOSOPHY OF EDUCATION.

EDITOR:

WILLIAM H. PAYNE,

Associate Editors:

C. L. WHITNEY, JOHN GOODISON.

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Vol. IV.—YPSILANTI, JANUARY, 1869.—No. 1.

7645

T. Cicero Furioso.

AND who is Mr. Furioso?" Patience, gentle reader. This is just what I propose to tell you. Perhaps I ought to say rather, that I intend to show *what* he is. I am not quite sure, on reflection, that I am at liberty to describe him so minutely in the Teacher as that my readers may say, "Thou art the man;" yet I may be allowed to draw a picture bearing a resemblance to more than one person known to my readers. In this view of the case Mr. Furioso is the name of a class, rather than of an individual. I am happy to have made this change in my plan, since I may now be relieved of all suspicion of being personal in my remarks.

Of course, Mr. Furioso is a teacher. Otherwise, why should I mention him in this Journal? He is not only a teacher, and therefore of general interest to my readers, but has certain peculiarities which entitle him to special consideration. In a certain sense we are all "peculiar people." Our individuality is due to our peculiarities. We are John or Henry, Susan or Mary, just because of certain differences between us and the rest of humanity. Nature, that has made no two beans or leaves exactly alike, has created the human race in infinite diversity. But it is not in this sense that Mr. Furioso is peculiar. There

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is a normal type, according to which each human countenance is fashioned; but this type admits of countless diversities, yet embraces all in a common unity. But should there be an inordinate, or, as men say, an unnatural development of nose, or chin, there is such a manifest departure from the normal type as to place its possessor in a sub-class *peculiar*. In this case stands Mr. FURIOSO. Merely as a teacher, he need attract no more attention, nor deserve more consideration, than you or I; but he is a teacher of such radical and striking peculiarities, as entitle him to our careful notice.

I more than suspect that Mr. FURIOSO is not a teacher from choice. Circumstances, in his early years, almost forced him into a path which he has since been unable to abandon. If I mistake not, paternal pride early set him apart for legal honors. On this hypothesis I can easily account for the fact that even from childhood he was known as T. CICERO FURIOSO, and not as Tom, or Thomas C., or T. C. FURIOSO, like ordinary boys.

Should any unromantic reader fail to appreciate this little device, I might refer to classic names, as C. JULIUS CÆSAR, M. PORCIUS CATO, P. VIRGILIUS MARO, etc. Most certainly there *is* something in a name; and persons ambitious to acquire notoriety can hardly be too attentive to the fact. How commonplace, how suggestive of humble aspirations is the ordinary G. W. STUBBS; but how impossive, how striking, how prophetic of coming greatness is G. WASHINGTON STUBBS! These considerations, even if no stronger evidence could be adduced to the same effect, must convince my readers that parental affection had early determined that Mr. FURIOSO should distinguish himself in the Law. But fortune is a harsh mistress and often sports with the most lofty of human aspirations. Impecuniosity threw this child of hope, at an early age, upon his own resources; and long before he had completed his preparatory studies he was forced to seek some means of procuring the funds which his increasing necessities required. Teaching was the common refuge to all who were distressed in pocket. Male and female, old and young, learned and unlearned, could here find meat and drink. CAVE CANEM was not then written over the office door of the County Superintendent. All who would might come in.

Girls from the kitchen, boys from the plow, and young men from college were on an equality. To be sure there was the formality of an examination; but what was there to fear when examiners knew even less than the examined? Had Mr. FURIOSO lived in these days when odious distinctions are made, and it is thought to be necessary that persons be able to spell in order to teach spelling, he would forever have been cut off from a profession in which he has acquired a notoriety. As it was he began the business of teaching at the age of fifteen, but only with the intention of continuing in it till he could finish his legal studies. But this easy way of getting money gradually silenced the voice of ambition; and he had not yet reached the profound discussions on *jetsam* and *flotsam* when he had concluded to serve his generation in the capacity of teacher.

I have now related how Mr. FURIOSO disappointed the fondly cherished hopes of his parents—how the possible lawyer became the actual school-master. It is now my purpose to show how he gradually acquired those peculiarities which entitle him to a notice in this journal. From the nature of the case his acquirements up to the time when he taught his first school were decidedly limited; and quite as naturally his subsequent progress was exceedingly slow. If the truth must be confessed, T. CICERO FURIOSO was not a man of brilliant parts, while the glorious future which parental affection had assured to him as the inevitable result of his fine genius, had robbed him of that ambition which could alone make mediocrity respectable.

When sight drafts are drawn upon ignorance only two modes of procedure are possible—confession or pretention. To confess one's ignorance is humiliating to a little soul, while a constant pretense of knowing begets a self-assurance and bigotry which become ruling motives. The reader is invited to consider for a moment Mr. FURIOSO's situation. He began teaching under two serious disadvantages—limited acquirements and an unwavering confidence in his own capacity. Each day of his life requisitions were made upon him for information which he did not have; and thus was established the habit of *seeming* to be wise, sagacious and profound. He soon required a remarkable facility in simulating virtues which he did not possess. Was he asked for

information which he was wholly unable to give? he would assume an air of such profoundity and announce his opinions with such pompous diction as to silence skepticism itself. Mr. FURIOSO has always been very demonstrative in all his doings. Every movement must be accompanied with a flourish of trumpets. His first effort is invariably to produce an effect by some violent exercise of authority, by a pompous way of doing some trivial thing, or by a grave assumption of unusual wisdom. He has passed in rapid succession from one school to another, always adding force to these artificial elements of his character, till he appears to-day as a peculiar teacher in the most violent sense of the term.

Thus far I have tried in brief terms to set forth what seemed to me the elements of that character, a few striking features of which I will now proceed to describe. Mr. FURIOSO attaches the highest importance to the term which shall designate his position. He is now teaching a village school of two hundred pupils, in Pentyton. He has three assistants in the lower classes, while he himself teaches Grammar, Algebra and History. T. CICERO FURIOSO is neither the *Teacher* of this school, nor its *Principal*, but the only term at all adequate to express the degree and quality of his functions is *Superintendent.* Have Boston, New York, Cleveland and Chicago each a Superintendent of schools? So has Pentyton. A Superintendent must needs have an office. Mr. FURIOSO has one. It is not fitted up with the appointments becoming such a station, but it is an *office* —"OFFICE SUPERINTENDENT OF THE P. G. S."

The unsophisticated reader may perhaps need to be told that "P. G. S." in the vulgar tongue is "Pentyton Graded Schools." The paper devoted to Mr. FURIOSO's correspondence, official and otherwise, bears the conspicuous heading,

OFFICE SUPERINTENDENT SCHOOLS.

He who would witness self-complacent greatness should see Mr. FURIOSO seated in his "office." Each teacher as she enters the building in the morning must pass in review before this Cerberus who records each failure to respond to the tap of the bell. But should my readers wish to see Mr. FURIOSO in the full enjoy-

ment of his prerogatives, they ought to enter his office where he is issuing his Orders. Besides being a waste of time, it would be a loss in dignity, for the "Superintendent of the P. G. S." to visit each of the departments in turn, and make known his requests. Such a procedure might be well enough for ordinary men, but not for Mr. FURIOSO. Below I give a specimen of one of his orders, for the instruction of my readers:

OFFICE SUPERINTENDENT SCHOOLS.

General Order No. 3021.

TEACHERS: Boys are strictly forbidden from this date to wear their pants in their boot-tops as they enter their respective rooms.

T. CICERO FURIOSO, *Superintendent P. G. S.*

These Orders are delivered to the teachers with great formality by the man who builds fire and sweeps, and is irreverently called the "Assistant Superintendent of the P. G. S."

These Orders do not relate alone to pupils. Mr. FURIOSO is nothing unless in the constant exercise of authority. He can not enjoy life except on the condition of cracking his whip over some one's back. A king without subjects would be no more illogical than a "Superintendent" without subordinates. Mr. FURIOSO leaves nothing of importance to the judgment of his assistants, but out of his own wisdom prescribes what shall be done and what not done. One Order was to the effect that teachers should not leave the school building in company with each other. This was based upon information brought by the "Assistant Superintendent" that Miss JONES and Miss SMITH had been seen in close consultation, and that Miss JONES laughed in a peculiar way when Miss SMITH mentioned the name of Mr. FURIOSO. Of course, this was proof conclusive that a conspiracy had been formed against the dignity and authority of the "Superintendent."

I had intended to notice other peculiarities of T. CICERO FURIOSO, but I am reminded that perhaps I have already overtaxed the patience of my readers, and so will defer to a future occasion the finishing of my picture.

NOTES AND QUERIES ON WORDS.

AGREEABLY to your request, I gladly send you a few hasty notes, that chance to be uppermost in my mind, on the subject of *Words*.

Let us begin with the combination *st*. The sharp, short sound of these consonants naturally conveys (does it not?) a command to halt. And hence, perhaps, the words stop, still, etc.

But further we have the roots, sta (Latin), sta (Greek), sta (English), beside German, and I know not what others. From these come, stand, station, stathmos (Greek) and others. From the above root we have the word *stage*, meaning, first, a platform; hence the word is used to indicate the drama. But again, all along the lines of the mail coaches, stages were erected, by means of which the passengers climbed up to the lofty, lumbering vehicle. As these were placed at somewhat regular intervals, the distance between any two of them came to be called a "stage," and persons traveled so many stages. So, too, we speak of a stage in any proceedings. But gradually the vehicle itself, which passed by those platforms, was called a stage-coach. And, in time, the last part of the name was dropped, and they were called *stages*. And at last this term came to be applied to almost any vehicle for carrying passengers, and we hear of Broadway stages.

What a curious history is that of the word "poltroon," as given by HORNE TOOKE. In the early times, it was not uncommon for persons who were anxious to escape the military service, to cut off the thumb of the right hand. By this mutilation they rendered themselves incapable of using the bow, the weapon then in common use. A person so disfigured was called *pollice truncatus*, "deprived of the thumb." Following the not unfrequent custom of shortening a word till only the first syllable remained, men subsequently used the abreviation *poll-trun*, from which comes our poltroon.

Usually the auxiliary verbs retain something of their original meaning. Thus, *I do affirm* means (I suppose), I do to affirm, I

act to affirm, or I act so as to affirm. Yet more evident is the meaning of the auxiliary *will*. "I will go," I will to go, I resolve to go.

And here, by the way, is a very simple and intelligible explanation of the use of *shall* and *will* in the different persons of the future. *Shall* expresses simple futurity; *will* expresses futurity resulting from intention or wish.

I will go. Here is intention. I shall go. Here is futurity alone. And so in the other persons. You shall go, expresses futurity, pure and simple; the idea of desire, on the part of the actor, being entirely counted out. You will go; here a future act, supposed to depend as the will or intention of the agent, is pointed out.

But to return to our auxiliaries. Does the word *have* retain the idea of possession when used as an auxiliary? Sometimes, perhaps, it does. Thus, "I have built a house;" is this equivalent to "I have a house built?" I do not feel sure. But again, "I have lost a hundred dollars;" here we cannot trace the idea of possession, for it would be absurd to say, "I have a hundred dollars which are lost." I should like to get some light on this point.

The radical idea of the genitive case in Latin and Greek, as implied by the very word "genitive," is origin, source. Why, then, does the genitive come to imply possession? Is it not because the two ideas of possession and of origin are indissolubly connected, because possession is based upon origin? The world belongs to God, because he made it. HOMER'S poems are HOMER'S, because he made them. And when we have not created the thing itself, our right of possession comes from the fact that we have been the source of its value. A piece of gold, lying in the mountain, is the property of no one and is of no value. A man digs it out, and thus imparts value to it, and it is his property. But he was the *source* of its value, before the value was his *property*. So if I carve a statue from a block of marble, the value attaching to it, that in which my *possession* lies, exists only in the value which has gone forth from my hands and brain. And so, naturally, the genitive case, or the case denoting origin, is the case that indicates possession.

I have tried in vain to trace any connection between the two meanings of the word "fast." It means originally "firm," "settled," and from this we can without great difficulty get the meaning "near," as in the expression "fast by;" since any thing that is fixed in a crevice, or hole, so as to be near to the sides of the crevice, would be firm. To drive in a spigot *fast*, is the same as to drive it in *firm*. But how do we get the meaning "rapid," "swift?" This I cannot at present see. Will any one inform me?

With your permission, I will at some future time recur to the subject.

H. L. WAYLAND.

PROGRESS OF POLAR EXPLORATION.

THE MICHIGAN TEACHER for October, 1868, contained an account of several actual or projected expeditions for the exploration of the Polar regions. Two only of these sailed last year, Dr. PETERMANN'S German expedition and the Swedish. We propose to present a summary of the results obtained as far as the published materials allow.

Neither expedition succeeded in reaching the pole. The year has been an unfavorable one, not only for the explorers, but also for the whalers, on account of the uuusual quantity of ice driven toward Greenland by strong easterly winds. But, though failing of the main object, both expeditions succeeded in reaching high latitudes, and valuable experience has been gained, which will prove of service to future explorers.

In order to estimate fairly the amount of work done, it should be remembered that the highest latitude hitherto reached in this region, 82° 45′, was not made by ship. Capt. PARRY, after reaching the ice, left his vessel and advanced on sledges, and only relinquished the attempt when he found that the ice drifted southward faster than he progressed northward. The German and the Swedish expeditions are founded upon a theory of the Arctic waters the opposite of that which led to PARRY'S attempt.

They hold to an open sea north of the ice-barrier, while in PARRY'S time a continuous ice-crust was believed to surround the pole, and this is still the view maintained by Capt. SHERARD OSBORNE.

The Germania, Dr. PETERMANN'S vessel, left the harbor of Bergen at 3 o'clock in the afternoon of May 24th. On the 26th it had reached 64° N. L., a little east of the meridian of Greenwich. In 66° N. L. it met with a calm of several hours duration and afterwards north-west breezes. On the 29th another calm occurred, followed by S. E. breezes, changing to E., and resulting on the 30th in a violent storm. The ship was then in 70° 22′ N. L., and pursued until the first of June an almost direct easterly course, meeting with renewed calms on the morning of that day. This was followed by S. E. wind, and an observation taken in the afternoon gave Lat. 70° 30′ N. Long., 1° 31′ W. From this point an almost N. W. course was followed until June 3d, when 74° N. L. was crossed in 5° W. Long. The first ice was met June 5th in 74° 50′ N. L., 10° 38′ W. L. Capt. KOLDEWEY pushed through the ice toward free water which he observed to the N. W. On the 8th of June 75° 19′ N. L. was reached in 12° 48′ W. L., but a violent storm from the east rendered it necessary to give up the attempt to reach the coast of Greenland. This storm among the ice placed the ship in great danger, but it escaped without injury. The continuous east winds packed so much ice on the coast as to preclude all hope of reaching it. The direction of the wind compelled Capt. KOLDEWEY to sail S. E. until June 20th, when he spoke the ship "Diana." Again he sailed N. E., being seen by the ship "Bienenkorb" June 24th; then a little more to east of north, speaking the ship "Hannover" June 29th. The next day he pushed east, and July 3d came in sight of the S. W. coast of Spitzbergen. The ice packed in N. and E. to an extent which rendered it impossible to penetrate it. Until July 9th stormy weather from N. and E. was experienced, and the lightness of the ship, together with the scarcity and badness of the water, compelled him to anchor under Middle Hook on the coast of Spitzbergen. July 15th Capt. KOLDEWEY sailed N. W. and reached 80° 30′ N. L. in 6° 35′ E. Long. Until the middle of August

several attempts were made to reach the coast of Greenland, but the state of the ice rendered them fruitless. August 27th the expedition was at Cape Torrell, the most southerly point of North-east Land, Spitzbergen. On the 30th of September Dr. PETERMANN received a despatch from Bergen announcing the return of the expedition. On the 12th of October the "Germania" entered the harbor of Bremen amid general public rejoicings. A public dinner was given to those concerned in the expedition. Dr. PETERMANN gave an account of the journey and stated that only the lack of means would prevent another expedition being sent out next year. A committee was formed from those present to provide the necessary funds, and another expedition next year is a matter of almost absolute certainty.

The Swedish expedition, according to the latest accounts, reached 82° 40′ N. L. toward the close of August. A few days after gaining this point comparatively free water was observed to the north from a peak on Parry Island. The coal ship of the expedition has returned to Sweden while the exploring ship sailed again for the north.

LAMBERT'S expedition will probably sail during the spring of 1869. The subscriptions are nearing the required amount, and the projector is searching for a suitable ship.

Last year's work has done nothing toward deciding which of the proposed routes is the best. Dr. PETERMANN'S plan has received endorsement from Capt. DAVID GRAY, a Scotch whaler, familiar with the coast of Greenland. Capt. LONG, of the American whaleship Nile, who recently described the new land north of Behrings Street, holds LAMBERT'S route as the best. Dr. HAYES in a recent address before the American Geographical Society upon the Progress of Arctic Discovery, favors the route by Baffin's Bay. It must be admitted that the most northern land known has been reached in this direction. Yet this is no warrant that further progress can be made on the same route. The failure of Capt. KOLDEWEY on the other hand proves nothing against PETERMANN'S plan, as the uniform testimony of whalers is borne to the unusual quantity of ice present in the Arctic waters this year. This difficulty was further complicated by the prevalence of easterly storms, which filled the sea

between Greenland and Spitzbergen with ice. Moreover, if the news from the Swedish expedition proves correct, there is reason to believe that had KOLDEWEY felt justified in persevering longer, he would have met with ultimate success. Judging from the testimony before us, it is hardly possible to doubt that Dr. PETERMANN'S is after all *the* plan.

ENCOURAGEMENT.

BY PROF. A. A. GRIFFITH.

IT is now admitted by the most successful educators, that any evidence of progress in studies or improvement in habits, should be strongly encouraged, though the student may not even approximate to the highest standard in either. Everything has its beginning, and every beginner is not and cannot be perfect. In the first days of school life, the approbative faculties cannot be appealed to, too strongly. To punish or to threaten to punish a beginner for not accomplishing the first work assigned to him, or for a failure to do it perfectly, is to ignore experience and to forget the uncertain days of childhood. The instructor who should insist upon completeness in these first uncertain steps, may not be surprised if he should change the hopeful into the hopeless,—and transform the school-room into a prison. If led aright (properly encouraged), children will desire to learn, and all the sunshine and enthusiasm of childhood may be enhanced by the pleasant labor of acquiring knowledge. It is easy to say, "well done," as the youth girds himself for his first achievements in school, though he may not exhibit the breadth and fulness of the master.

Parents may help the teacher to cast a delightful glow over all connected with the school, and school life, and perhaps in no way so much as to go with the scholar and sustain him until he has learned his place, become acquainted with his classmates, and feels at ease amid the new wonders of the school-room. The teacher will take as much interest in a pupil, who has thus been introduced to his notice, as in the

straggler, who comes without an attendant, and for whom no one seems to care or think. It is not satisfactory or reasonable to say that parents have *no time*, for if he puts a colt in training, or plans a house to be built by another, he will *find time* to see how the training progresses, or how the foundations of the house are being laid. Let the dinner suffer, or call of courtesy, or the house, or the shop, rather than permit the youth to go unattended to begin his intellectual labor.

In after days when the reasoning faculties are more mature, *caution* must *accompany encouragement.* To say *well done* always when the work has been improperly or slovenly done, is to injure the character. To repress insolence, boldness or laziness, and energize the character, to add clearness to the sight and positiveness to the understanding, may require a rigid seriousness and sometimes an *iron rule.* To meet the world well, and act a manly part in spite of discouragements and disappointments, an acquaintance with *discipline* must be known, and love of obedience felt. A desire to encourage however, must always be uppermost in the mind of the teacher, and all proper efforts of young students should always have radiently overshadowing them, the recollection of approval from teachers and parents. There is then no weariness in well doing. To feel that none appreciate or approve, to labor with the constant impression that however much is done, there will be none to recognize it, to have fellowship always with frowns and bitterness, has been the hard lot of *too many*, some of whom have lost pride and hope and gone down. Some noble natures have toiled on, and at last the world has thrust the "laurel crown" into their languid hands. "The dew is dried from off its leaves," and they look upon it distrustingly. The approval and praise has come too late to do them any good. Many an outcast, we fear, can say, that at the critical time, when the good was being overcome and displaced by evil influences, there was no one to take them by the hand and hold them in place, or by a kind word or smile assure them they were remembered and sought after. Under ordinary circumstances the teacher may strengthen the purpose soften the heart by kindness and encouragement, neglect and frowns.

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opinion was presented by superintendents and teachers—that the new system has been a triumphant success, and is an absolute necessity. We wish the people of Michigan knew what a band of noble men these officers are; how they have gone through their respective counties, almost re-creating schools, school houses, and popular sentiment—how they have rescued the children from incompetent and ignorant teachers. Till the inauguration of the present system, the examination of teachers was the most shallow farce, while the visitation of schools was not even that—it was nothing at all. The consequence was that very many of the schools had teachers destitute of every proper qualification. Now, it is not too much to say, all this has been changed. A line has been drawn to which every teacher must come who wishes employment. A certificate must be earned, and when received is valued. We do not know how to better describe the present state of things than to say it is *healthy*. Activity is the law, and progress the result. Long live the County Superintendents!

"Ought another Normal School to be established?" was almost unanimously answered in the affirmative. Our present school will graduate about twenty teachers each year. This is but a very small percentage of the eleven thousand actual teachers in Michigan. The opening of a new Training School, by the spirit of generous rivalry thus created, and by the increased facilities for Normal instruction thus offered, would simply answer an actual need of the times.

"Ought women to enjoy equal educational advantages with men?" was warmly discussed and adopted as the unanimous sentiment of the Convention. We commend the common sense logic of Hon. IRA MAYHEW: "The University was founded for the *people*. Women are people. *Therefore*, women ought to be admitted to the University." This is both logic and common sense. One gentleman argued that the University was so full that there was no room for women. Another suggested that as the men had monopolized the privileges for several years, the women should now occupy the institution for an equal length of time!

The number in attendance at Adrian was usually large,

but very small when compared with the whole number of teachers in the State. Detroit was represented by one teacher. It would be of some advantage to hold the annual meetings nearer this city. On one occasion the Association met in the city itself, and if we counted correctly, there were *two* of the city Principals in attendance. Not quite the usual number were present from the University. Last year the Association was gladdened by the presence of two Professors,—this year there was present not even *one* representative of the New Oxford.

What shall we say of the generosity of the people of Adrian, who paid the hotel bills of the teachers who attended the Association? We might add adjective to adjective, and still fail to express our opinion of such an act. We will simply say that this mode of doing things is without parallel so far as we know. By vote of the Association, the following letter was prepared by the officers:

ADRIAN, Dec. 31, 1868.

To the President and Board of Trustees of the Public Schools of the City of Adrian.

GENTLEMEN:—Toward the close of the late session of the Michigan State Teachers' Association, it was announced by Prof. N. H. WINCHELL, that the bills contracted by the members of the Association at the several hotels in the city had been assumed by the members of the Board of Trustees, acting in behalf of the citizens of Adrian. It was thereupon unanimously *voted:* That the officers of the Association be instructed to convey to the authorities of the city the thanks of the body for this act of hospitality, unprecedented in the history of the Association.

In discharging this most gratifying duty, permit us to say that the teachers lately assembled in your city will return to their homes and to their labors, quickened to a higher degree of professional enthusiasm, and animated by the warmest wishes for the material prosperity and the educational advancement of Adrian. May the city which enjoys your care, under the favor of Providence, long continue to maintain its present eminence among the cities of our noble Peninsular State, and may the name of Adrian, already connected in classical story with the glories of the Roman Empire, derive a higher and more lasting radiance from its association with our more than imperial Republic. We respectfully request you to receive and to convey to the intelligent citizens whom you represent, the heartfelt acknowledgements of all the members of the Association, and we beg leave to remain, gentlemen, with cordial regard, very sincerely yours.

H. L. WAYLAND, *Pres. of the Association,*
H. A. FORD, *Vice President,*
C. F. R. BELLOWS, *Secretary.*

It is our invariable rule to discontinue the TEACHER at the expiration of each subscription. We do this because we will not willingly send to any person who may not wish to receive our journal. It is well known that it is not possible to stop certain newspapers without a great deal of trouble. Publishers will send them whether the receiver wants them or not. A simple notice to continue the TEACHER will never be unheeded by us.

The students of our Normal School are now receiving daily instruction in elocution and oratory, by Prof. A. A. GRIFFITH. Prof. GRIFFITH has acquired a national reputation as an author and as an accomplished elocutionist, and his appointment to this position is on every account one eminently "fit to be made."

The papers read before the State Teachers' Association at its meeting in Lansing have been published in pamphlet form, and have been sent to all who were known to be actual members. Should any such fail to receive a copy, it will be sent gratis on application to this office.

The January TEACHER has been delayed by the want of waiting for a report of the County Superintendent's and State Teachers' Association meetings. We trust that the advantage of having an early account of these matters will be sufficient apology for the delay.

Our readers, especially our new subscribers, will bear in mind the fact that each volume of the TEACHER contains *ten numbers*, there being no issue in July and August.

PRACTICAL DEPARTMENT.

BY request of many subscribers, we repeat the recipe for making blackboards, given in our last volume.

The mixture consists of 1 gal. Alcohol, 1 pound Shellack, 2 oz. Lamp Black, 2 oz. Ivory Black, 2 oz. Chrome Green. The last ingredient is not absolutely necessary, and it will be beneficial to calcine the Lamp Black in an iron cadle before using. Two coats will usually suffice, and may be applied with a flat varnish brush. If the walls have been whitewashed they must first be brushed over with weak vinegar or better dilute sulphuric acid, to neutralize the lime. Cracked walls or wooden blackboards should be covered with Manilla Paper fastened on with glue. The application of the sizing of diluted glue to the wall or boards will insure the adherence of the paper. The quantity given above will usually cover about 400 square feet two coats. A greener color may be given to the mixture by omitting the Lamp Black and increasing the quantity of Chrome Green.

Sympathetic inks are among the most pleasing illustrations of chemical action. If a sheet of paper is written or drawn upon with a solution of Chromate of Potassa, and when dry washed with a solution of Acetate of Lead (sugar of lead), the writing or drawing will become a bright yellow. Carmine might be produced by Chromate of Potassa and Nitrate of Silver, for crimson substitute Nitrate of Mercury for the silver, for blue use Prussiate of Potassa and Carbonate of Iron, for a purple black solution of Galls and Sulphate of Iron.

A very pretty mode of exhibiting the process of crystallization is to wash a sheet of window glass with a hot saturated solution of Sal Ammonia. As the moisture evaporates, the glass will be covered with beautiful radiated crystals.

The fact that plants give off oxygen, may be shown by putting a quantity of fresh cabbage leaves into a wide-mouthed bottle and filling it up with water. If the bottle is turned mouth downwards in a saucer full of water, and placed for a few hours in the sunshine, the upper part will be filled with oxygen.

A very simple and yet perfect illustration of the nature of Geysers is obtained by heating the stem of a tobacco pipe to redness and then pouring water into the bowl. As soon as any water comes in contact with the heated portion, steam will be generated and force thus produced will eject the water from the bowl.

ALLIGATION ALTERNATE.

EXAMPLE.—I have sugars worth respectively 24, 20, 18, 16, 14 and 12 cents per pound, and wish to make a mixture of 56 pounds worth 17 cents per pound. How many pounds of each kind may I take?

PROCESS:

	1 Rates.	2 Cents.	3 lbs.	4 Cents.	5 lbs.
17	24	7	3	21	6
	20	3	5	15	10
	18	1	4	4	8
	16	1	8	8	16
	14	3	4	12	8
	12	5	(4)	20	8
			28) $5\frac{6}{2}$		56

EXPLANATION.—On one pound worth 24 cents, sold for 17 cents, there is a loss of 7 cents; on one pound worth 20, sold for 17, there is a loss of 3 cents; on one pound, worth 18, sold for 17, there is a loss of 1 cent; on one pound, worth 16, sold for 17, there is a gain of 1 cent; on one pound, worth 14, sold for 17, there is a gain of 3 cents; on one pound worth 12, sold for 17, there is a gain of 5 cents. On 3 pounds worth 24, there will be a loss of 21 cents; on 5 pounds, worth 20, a loss of 15 cents; on 4 pounds, worth 18, a loss of 4 cents; on 8, worth 16, a gain of 8 cents; on 4, worth 14, a gain of 12 cents. Thus far there is a loss of 40 cents (21, 15, 4), and a gain of 20 cts. (8, 12); and in order that the aggregate losses and gains may be equal, there must be a further gain of 20 cents (40—20). This will require 4 pounds of the 12 cent sugar. The gain is now equal to the loss and there are in all 28 pounds, or one half of the amount required. Hence each quantity in column third must be doubled, making column fifth.

PROOF.

6 lbs. at 24 cents	= 144 cents.
10 lbs. at 20 cents	= 200 cents.
8 lbs. at 18 cents	= 144 cents.
16 lbs. at 16 cents	= 256 cents.
8 lbs. at 14 cents	= 112 cents.
8 lbs. at 12 cents	= 96 cents.
56 lbs. worth	952 cents.
1 lb. worth	17 cents.

REMARKS.—When the price of each of several samples is given, and it is required to make from them a mixture of a given quality, the process is called *Alligation Alternate.*

When the aggregate quantity is not specified, the required amount of each sample will be found in column third.

In this case an infinite number of answers can be found, for it is evident that any multiple of the quantities in column third will answer the conditions when a definite amount is not required. In Algebra such questions give rise to *indeterminate equations.* The example just solved would have the following statement:

(1) $24X + 20y + 18z + 16t + 14u + 12v = 17X + 17y + 17z + 17t + 17u + 17v.$

(2) $X + y + z + t + u + v = 56.$

Book Notices.

A TREATISE ON PHYSIOLOGY AND HYGIENE. By J. C. DALTON, M. D. New York: *Harper & Brothers.* 1868.

The necessity of giving Physiology a place among the studies of the common school, is generally admitted. Many of the school manuals of this science are filled with mere details of structure—the topography of the human body, and bear the same relations to the real science that the so-called *local geography* does to the geography of RITTER or HUMBOLDT. These details are necessary, they have their place, but a textbook is neither interesting nor valuable which is occupied wholly with them, to the neglect of vital phenomena. Dr. DALTON'S book appears to avoid successfully this extreme. Nothing is omitted necessary to a sufficient knowledge of the *structure* of the body, while *function* receives a full treatment. Chapters XII to XVII are especially worthy of attention, and comprise an account of the nerves, the brain and the special senses. Chapter XVIII treating of development, and following out the growth of the body from infancy to maturity, is a little unusual in a school book, but no one having read it will wish it away.

A TEXT BOOK OF NATURAL PHILOSOPHY. By LE ROY C. COOLEY, A. M. New York: *Chas. Scribner & Co.*, 1868.

Prof. COOLEY has produced a thoroughly good and useful book. The arrangement is progressive, the matter is broken up into topics of suitable length, and the language is simple and straightforward. Every important subject is closed by a series of ingeniously devised problems. The more recent views of sound, light and heat meet with a fitting share of attention, and the author distinguishes clearly what is established in these views from the purely hypothetical matter. In this he has avoided a common error of text books, which often state as fact what is merely ingenious speculation. The illustrations are good, though the printer has scarcely done full justice to them.

LIPPINCOTT'S MAGAZINE for January has an article of great interest, giving an account of a secret agent of LOUIS NAPOLEON. There is nowhere in literature a clearer indication of the real nature of the notorious *coup d'etat.* Its perusal is to be recommended to all literary associations which may listen this winter to J. S. C. ABBOTT'S laudations of the hero of that atrocious movement. The other articles of this number are of the usual excellent character, among them the commencement of a new serial novel, "Beyond the Breakers."

While we should make our schoolrooms beautiful, the yard must not be neglected. We well remember two visits paid to a school in a thriving village in Macomb county. At the time of the first visit the yard attracted attention, although it was hardly attractive. It was in fact the embodied idea of dirt and disorder. Sticks of wood, old tin ware, heaps of ashes, were scattered freely around. It is needless to say that the inside of the school was very much like the outside. A few years after we found an entire change. The litter had disappeared, paths had been laid out and beds planted with flowers, many of them choice varieties. Inside similar changes had been made. The walls were papered and hung with charts, house plants occupied the windows. Naturally there was order and progress in a school with such surroundings. All this was done with but little cost or labor, and the coming spring might see many schools following this example. We have been led to these thoughts by looking over the Annual Catalogue of flower seeds send us by Mr. JAMES VICK, Rochester, N. Y. As we turned its pages we could not help wishing that it was in the hands of many teachers, especially those who are to teach summer schools. We are confident that any effort to change the aspect of the patch of barrenness and litter around the schoolhouse will more than be repaid. So far as Mr. VICK is concerned, we know from experience that the seeds he sends out are of excellent quality and moderate price. His catalogue contains many well executed colored plates of flowers, and may be obtained for 10 cents.

DRILL BOOK OF ELOCUTION AND ORATORY. By ALLEN AYRAULT GRIFFITH, M. A. Chicago: *Adams, Blackmer & Lyon.* pp. 96. 1868.

We recently listened to a most interesting lecture, the full enjoyment of which was almost entirely destroyed by poor delivery. Nothing is more certain than that such a training of voice is possible as will enable almost every one to speak with ease to himself and pleasure to his hearers. The book before us professes to give practical instruction in the art of elocution, such as a student or teacher may employ with almost the certainty of success. The work to be done is arranged in three parts—*Physical Culture, Vocal Culture* and *Expression.* There is first a concise, yet complete statement of each principle, and then suitable examples for exemplification and practice. The book appears to us to be just what its title indicates, a drill book, and, in our opinion, is the very best work of its kind yet published.

We have been favored by the author, Prof. BELLOWS, of the Normal School, with some specimen pages of his "Analysis of Arithmetic." It aims to present a summary of Arithmetic in the form of a classification in which "each topic and sub-topic appears in its natural order and logical connections." Such analyses are of great value, enabling the student to review and test his knowledge of the subject, and tending to give a mastery of it independent of text-books. The reputation of Prof. BELLOWS is sufficient guarantee for the merit of his work.

HOURS AT HOME is steadily making its way to a front rank among magazines. The January number contains an article by Prof. E. P. EVANS upon "Bab and Babism," giving an account of the growth and tenets of a new Asiatic sect. Among the other contributors are Dr. BUSHNELL, Miss YONGE, and the authoress of 'Mary Powell." Mr. CHARLES WELFORD gives an interesting summary of European literary news.

ANALYSIS OF CIVIL GOVERNMENT. By CALVIN TOWNSEND. New York: *Ivison, Phinney, Blakeman & Co.* 1869. pp. 342.

On more than one occasion the wish has been expressed in the TEACHER that a very much larger share of attention might be given to the systematic study of Civil Government. The very thing that the genius of our institutions requires every American youth to understand is, of all others, the one of which he is most profoundly ignorant. Self-government presupposes a knowledge of the organic and special laws to which each citizen of the Republic must be obedient; but how often do we find a pupil well versed in Mythology, Antiquities, Science and Art, but hopelessly ignorant of the governmental machinery of his County and State? We believe that attention is being gradually directed to this subject, and we know of some schools in which this study is a specialty, and is pursued with the greatest enthusiasm.

Hitherto a serious obstacle has been the lack of suitable textbooks. Mr. A. W. YOUNG'S works are of real value, but they are more suitable for reference than for use in the class-room. Mr. YOUNG is a pioneer in this work, being, so far as we know, the first American author who prepared a book for this special purpose. His Civil Government did a noble work in attracting public attention to this subject, and its author deserves the lasting gratitude of his countrymen.

More recently, Dr. ALDEN'S Science of Government has come into use in some of our schools, and has done excellent service Now, however, we have TOWNSEND'S Analysis of the Constitution, comprising a chart, noticed in a previous number, and an accompanying text-book, the subject of the present notice. The chart exhibits a clear analysis of the Constitution, and this work gives a more detailed account of each part. One plank of the TEACHER'S educational platform is a plea for the *analytical* method of study. To use ARISTOTLE'S expression, "The genesis of knowledge is from universals to particulars—from the vague to the definite." Of all the text books we have ever seen, this conforms most perfectly to what we believe to be the true method. The only question which remains for us to examine, refers to the degree of elaboration, suitable for the purpose of class instruction. In this respect, judging merely from examination, and not from actual use in the school-room, we think the golden mean has been observed. It is neither a bare epitome nor an elaborate treatise suitable for a lawyer's use.

SLOAN'S ARCHITECTURAL REVIEW for January contains a beautiful design for a one store schoolhouse in the Swiss-Gothic style. There are many situations in Michigan adapted to this style of architecture, and such buildings would be a pleasant change from the universal oblong brick or wooden box which is redeemed only by its uses. The construction is of wood throughout and very simple. The remaining articles of this month's issue are of superior excellence, and the new cover is a great improvement. The style in which this periodical is got up, reflects credit on its publishers, CLAXTON, REMSON and HAFFELFINGER, Philadelphia.

We have on hand a few copies of the LAWYER IN THE SCHOOL ROOM, which we will send to any address, post paid, on the receipt of one dollar.

EDUCATIONAL INTELLIGENCE.

MATTERS AT HOME.

COUNTY SUPERINTENDENTS' ASSOCIATION.

THE fourth meeting of the County Superintendents' Association was held at Adrian, Monday and Tuesday, December 28th and 29th. The opening session was held in the Presbyterian Church at 7.30 Monday evening. The President, Prof. PUTNAM, being absent, the chair was taken by Supt. J. S. GOODMAN, of Saginaw. After devotional exercises, Prof. W. H. PAYNE spoke in behalf of Su t. PIERCE, detained from the meeting by illness. A committee was appointed to prepare appropriate resolutions. Hon. IRA MAYHEW was invited to address the meeting, but the state of his health compelled him to decline. Supt. H. A. FORD, of Berrien, then opened a discussion upon the results of the year. He spoke of them as in the main satisfactory, the prejudice against the superintendency is dying out, and there is a marked improvement in all concerned in the work of education. Supt. BROWN, of Ingham, bore similar testimony, and spoke of the increased use of apparatus, and the advanced standard of scholarship. Supt. BROKAW, of Ionia, discussed the value of the work, and urged the importance of thoroughness from the very first. Good wages are paid in his county, and at the last annual meetings more money was raised for school purposes than ever before. The standard of qualification was higher this fall than last spring. Supt. SMITH, of Kalamazoo, stated, that he only lately succeeded to Prof. PUTNAM. He bore testimony to the efficiency of that gentleman, and hoped for the early removal of the remaining defects of the schools. Among these he counted the variety in textbooks as one of the chief. Supt. BATEMAN, of Lenawee, spoke of the general advancement of school interests in his county. He had urged with a good measure of success the abandonment of the Rate Bill. The use of Outline Maps and other apparatus is increasing, yet there is still a great chance for improvement. He had adhered faithfully to the 60 per cent. standard in his examinations. Supt. GARNER, of Shiawassee had resigned, the vacancy being filled by Prof. HEWES. This gentleman has now resigned, and there is at present no acting superintendent. Mr. GARNER will probably serve the balance of the term. He spoke of the value of the results following from the establishment of normal classes, especially the advanced standard of scholarship. Supt. CLARK, of St. Clair, had gradually increased the severity of his examinations. His great difficulty was with the large foreign element in

his county, who, as a rule, are content with low scholarship in their children and oppose all improvement. He had labored to advance salaries, and believed in paying a woman man's pay for man's work. Much improvement was manifested in the schoolhouses and their surroundings. Supt. L. R. BROWN, of Wayne, substantiated the experience of his brother superintendents. The condition of his schools was and is excellent. He looked to the children as the means of awakening an interest for education in their parents. Of the teachers examined nineteen-twentieths have passed satisfactorily. Great success has attended the efforts towards uniformity in text books, etc. Many valuable school buildings have been erected the past year. Supt. MARBLE, of Calhoun, could bear the same general testimony as his associates. He has 170 districts and finds a wide spread interest in the erection of good buildings. At his last examination he had held strictly to the 60 per cent. standard, and had rejected four-tenths of the candidates. Supt. LUCE, of Branch county, said, that he was new to the work, having been appointed to fill a vacancy. He has visited the schools of his county four times, and found considerable apathy on the part of parents and school officers, and some hostility to the superintendency. There was much improvement in the qualifications of candidates. There is $125,000 of school property in the county, and the cost of the schools is $52,000 annually. Supt. FORD thought that with good qualifications in other respects it was not best to insist too closely in the matter of spelling. Supt. GOODMAN, of Saginaw, had met with the same difficulties as others. He could not agree with the views of Supt. FORD, but would insist upon proficiency in all things. There is little opposition in his county to the superintendency, but much apathy in educational matters. He was in favor of free schools and compulsory education. After listening to some valuable remarks from Hon. IRA MAYHEW, the Association adjourned till 9 o'clock Tuesday morning.

The Association met pursuant to adjournment, and after devotional exercises listened to a paper by Supt. FORD, on the "Visitation of Schools." As it is understood that these papers are to be published in some convenient form, we do not attempt any synopsis of their contents. The topic of the paper was discussed by Hon. O. HOSFORD, Supt. BROWN, of Wayne, BATEMAN of Lenawee, GOODMAN of Saginaw, FORD of Berrien, BALLOU of Allegan, PALMER of Barry, BROKAW of Ionia, GARNER of Shiawassee, COOK of Hillsdale, PARKER of Oakland, Hon. IRA MAYHEW, Prof. CHURCH of Coldwater, Prof. VANDORN of Hudson, and Mr. J. H. ROLFE of Chicago.

The first paper in the afternoon was by Supt. BALLOU, of Allegan, on "Normal Training Classes." The subject was discussed by Supt. HOSFORD, Supt. BATEMAN, Hon. IRA MAYHEW, Mr. ROLFE, Supt. GOODMAN, GARNER, Prof. VANDORN and Supt. PALMER. Hon. O. HOSFORD suggested the establishment of a County Superintendents' paper. Supt. YORK thought such an undertaking would probably fail. The closing paper of the afternoon was by Supt. L. C. YORK, of Genesee, on Education of the Heart. He insisted strongly on the need of serious attention to this important subject. A committee was appointed to report on the establishment of a paper. HON. O. HOSFORD presented the topic of Courses of Study in District Schools. He was followed by Supts. COOK, BROWN of Wayne, and GOODMAN. A com-

mittee to solicit aid from the Legislature toward the publication of the proceedings was then appointed. Resolutions of condolence with Supt. PIERCE of Washtenaw were reported and adopted. The Association adjourned to meet in July, time and place to be fixed by the Executive Committee.

STATE TEACHERS' ASSOCIATION.

The Association assembled for its eighteenth annual meeting in the Presbyterian church, Adrian, on Tuesday evening, December 29th. The meeting was called to order by the President, Prof. H. L. WAYLAND, of Kalamazoo. After devotional exercises, the President announced that he withdrew the lecture appointed for the evening, and gave place to the Hon. O. HOSFORD, who would address the audience upon the "Relations of the Different Parts of our Educational System."

The Association was cordially welcomed to Adrian by F. R. STEBBINS, Esq., President of the Board of Trustees, President WAYLAND returning thanks on behalf of these present.

Prof. HOSFORD'S paper presented a summary of the early educational history of Michigan, and showed how the various branches of our school system had gradually reached their present form. The character of the different departments was briefly indicated and their mutual relations considered. This paper was to have been read before the Association of County Superintendents, but by mistake was appointed for the same evening as Pres. WAYLAND'S address before the State Teachers' Association. As Prof. HOSFORD'S lecture is to be published separately, we do not attempt any further account of its contents. The evening's exercises were closed with a recitation by Prof. A. A. GRIFFITH.

After the devotional exercises, on Wednesday morning, Pres. WAYLAND appointed the usual committees, and also a special committee to memorialize the Legislature jointly with the County Superintendent's committee for aid in publishing the proceedings. Supt. MCLOUTH, of Battle Creek, then read a paper upon "Primary Teaching and the Means of its Improvement." The reader first alluded to the object of the present meeting—improvement by means of mutual counsel. He spoke of the importance of the Teacher's work, and the need of constant repetition in order to fix attention on even the most common truths in regard to it. In teaching as in building a good foundation was the main thing, hence the pre-eminent importance of Primary Teaching. The great susceptibility of childhood caused the character of the Primary Department to determine that of the entire school, and rendered imperative the employment of the best teachers there. True Primary Teaching should be pleasurable to the child, and this rendered the work uncommonly difficult. The great cause of failure was defective teachers, for good ones were scarce indeed. Most of them were inexperienced girls. Not that there was any objection to women as such, in fact they were peculiarly adapted to the work and really superior to men. Too many take teaching up as a means to an end and hence give no thought to preparation. The true policy would be to employ inexperienced teachers as assistants in the higher departments and promote them *downwards*. Really

good Primary teachers were much injured by this competition with the inexperienced. He repeated his conviction that female teachers were best fitted for the Primary school. There were four means of effecting improvement in this matter: 1st, Creating a public demand for better teachers. 2d, Abandoning the custom of hasty promotion. 3d, Paying better wages. 4th, More Normal instruction. In the discussion upon this paper, which took place in the afternoon, the idea that instruction should be pleasant, was taken exception to by Prof. THORPE, and defended by others. Prof. D. E. THOMAS inquired whether this idea precluded a rigid adherence to rules of discipline, and was answered by several teachers in the negative. Prof. MCLOUTH'S views upon the fitness of women for the work of Primary teaching were heartily endorsed by Prof. PAYNE and others. Supt. BALLOU, of Allegan, stated, that in his county the percentage of successful lady teachers was greater than that of gentlemen. To the doubt expressed by some as to the success of schools taught entirely by men, Prof. BENGEL replied that such schools could be found in Germany, and that in Prussia there were no lady teachers. Prof. GOODISON showed that the last speaker was in error, that on the contrary lady teachers were quite numerous in Prussia and Saxony, and that Normal Schools were established expressly to educate them. The general sense of the meeting was in favor of Superintendent MCLOUTH'S views.

The second paper of the morning was Pres. WAYLAND'S address upon "Woman and her Destiny." This destiny was in one word *equality*. The differences between women and men were not greater than those between man and man. They were not identical, but this lack of identity did not imply inferiority. Woman should attempt all that man can do, and incompetency for particular employments would not show that he was her superior. Man has no exclusive property in any quality, and woman, though diverse, is his peer. The speaker next inquired if this destiny of woman had been realized. A negative answer only is possible. Woman has been unable to attain equality of achievement with man through two classes of disabilities, those imposed from without, and those imposed from within. Under the first were included: 1. Legal. 2. Political. 3. Industrial. 4. Educational. Under the second: 1. Readiness on the part of women to accept a dependent position. 2. Their contentment with low aims in life. 3. The low demands they make on others. 4. Disloyalty to her own sex in allowing the assertion of her inferiority. 5. The unjustness of women to each other. 6. Want of individuality. 7. Want of resolution, and 8. Want of faith in her own powers.

The afternoon session was opened by the discussion on Prof. MCLOUTH'S paper, alluded to above. This was followed by a spirited discussion of the Results of the County Superintendency, in which Hon. O. HOSFORD, Prof. W. H. PAYNE, Prof. D. P. MAYHEW, Prof. CROUCH, Supt. CLEVELAND, Prof. O. B. CURTIS, Supt. COOK, Prof. LATTA and Prof. G. S. WHITE took part. The speakers bore testimony to the success and value of the work, to the growing favor in which the office was held, and deprecated any attempt at its abolition. A resolution to this effect was passed unanimously.

Miss JULIA A. KING, of Flint, then read a paper upon "Teaching outside of Textbooks." The wondrous variety of nature is controlled by un-

changing principles. To everything there must be a beginning, and the mind is no exception to this—it is a power to be developed. How is development to be accomplished? Miss KING described the old pouring-in method, and contrasted it with processes of LOCKE and PESTALOZZI. Pupils should not be passive recipients but exercisers of their own powers. This exercise was to be furnished not by books but by direct communication with nature. Such teaching outside of books would be suggestive of new invention and discovery—it would give facility in language and promote readiness in composition. There are two ways of conducting this process; one makes the objects merely a means of imparting instruction, the other, and the true one, a means of education.

In the discussion which followed Supt. FORD expressed his hearty endorsement of Miss KING'S views Prof. THORPE followed in the same strain and Prof. T. C. ABBOT enlarged upon the value of such teaching in giving facility in the use of language and acquaintance with technical terms.

Hon. IRA MAYHEW then made some interesting remarks upon Practical Education, and illustrated the various processes which should be employed in giving early instruction. The state of Mr. MAYHEW'S health rendered him unable to make any extended remarks. In the evening Prof. GRIFFITH gave an Elocutionary Entertainment in his usual excellent style, and received the unanimous thanks of the association.

The session of Thursday was opened by listening to the reports of the various committees and by the election of officers. The report of the committee on legislation awakened some discussion, and additional resolutions were passed favoring the establishment of another Normal School, the admission of women to the University, and State provision for the higher education of women.

Prof. WINCHELL announced that the citizens of Adrian had assumed the hotel bills of the members, and appropriate thanks were returned for this unexampled liberality.

Pres. T. C. ABBOT then gave an outline of his paper upon "The Study of English Grammar." The author has promised to prepare this for the TEACHER, hence we give no account of it here. Supt. FORD declined, for various reasons, to read his paper on the "Common School from the County Superintendent's point of view." Prof. GRIFFITH gave a reading of "The Bells," and was followed by Miss GEORGIANA WEBB with a paper upon "Parental Interference." She points out forcibly the evils resulting from ignorant meddling with the affairs of the school.

Prof. WARREN, of New York, then made some remarks upon the subject of Penmanship. After the transaction of some miscellaneous business the President made some appropriate remarks and the Association adjourned.

The next President is Prof. T. C. ABBOT of Lansing. The Association will meet next year at Saginaw.

MACOMB COUNTY.

We select the following items from Superintendent BRIGGS' annual report: Number of Public Schools in county, 112; Private Schools, 12; Graded Schools, 8; "number of districts afflicted with a Rate Bill, 36;"

number of schools visited during the year, 310; number of days used, 286; number of persons examined, 215; received certificates, 182 (first grade, 5; second grade, 62; third grade, 115). There are 91 subscribers to the MICHIGAN TEACHER; 6 Normal School Graduates have been employed as teachers; whole number of teachers employed, 196; number retained same school for the year, 24. 9,496 children are enrolled in the county, of whom 6,676 attend the Public Schools. County Institutes were held at Mt. Clemens, Armada, Utica and Romeo, attended by 200 teachers.

KENT COUNTY.

Superintendent BICKNELL reports 12 Graded Schools in the county; value of school houses, $191,935; number of children attending school 11,221; per cent, of attendance, .75.

GRAND RAPIDS.—Supt. S. MONTGOMERY of the West Side Public Schools reports for the last two terms of 1867–8 43,631 as the total of days present; days lost by absence, 10.538; days membership, 54,169; times tardy, 2,474. There are 14 teachers employed. The total enrollment was 732; per cent. of attendance, 81.9; per cent. of absence, 18.1; per cent. of tardiness, 4.8.

SAGINAW CITY.—The schools close December 23d, and reopen the Monday after New Year's Day. One thousand pupils were enrolled the past term.

ST. CLAIR.—The fall term of the Union School in this city closes on the day before Christmas with an examination. The condition of the school is everything that could be wished. A large number of non-resident pupils are in attendance, and the graded system adopted by the Board of Trustees some two years since affords advantages almost, if not quite, equal to any to be enjoyed at the Normal and other higher institutions of learning. —*Tribune.*

NORTHVILLE. – The fall term of the Union School closed on the 4th of December. The examinations were well and creditably sustained. Prof. OSBAND and his able assistants are deserving of much praise for their diligent and successful labors, and the school is fast becoming a dangerous rival to the Ypsilanti schools. The winter term opened on the 7th with many new scholars. Dr. J. W. SWIFT is announced to give a series of lectures before the school during the term, on the subject of physiology.— *Tribune.*

HOUGHTON.—We are indebted to Prof. W. P. SIDNAM for the following statistics. In the High School the whole number enrolled since September 7th was 345; the aggregate attendance in half days, 30,110; aggregate tardiness, 387; average number belonging, 275.9; average daily attendance, 259.568; average daily tardiness, .667; per cent. of attendance on average number belonging, 94.134; per cent. of tardiness on attendance, 1.284; number of visits by members of School Board, 40; by parents, 107. For the whole school the above items give 743, 61,814, 831, 601.117, 540.332, .66, 92.641, 1.344, 47 and 147. There is a County Teachers' Association holding meetings monthly.

MARINE CITY.—The Union School is under the charge of Mr. CHAMBERS, assisted by Miss N. BEAL, Miss M. A. LOVE, Miss NELLIE WILKINS and Miss STEWART.

ALMONT.—Over 60 non-resident pupils are in attendance, and the Teachers' Class numbers 20. The School Board have just purchased a Chickering piano for the chapel.

DOWAGIAC.—The total enrollment for the past term was 923; per cent. of attendance, .86; per cent. of tardiness, .02; number of visitors, 153.

YPSILANTI.—Prof. S. S. BABCOCK resigned his position in the Seminary as teacher of Natural Sciences at the close of the last term. On Friday morning, December 18th, he was presented with a beautiful set of the American Cyclopædia, worth $75, by the pupils in the Academic Department. Prof. BABCOCK is succeeded by Mr. E. F. CURTIS, late Principal of the Union School at Rockland.

HOWELL.—One of the best school buildings in the State has just been completed, and liberal appropriations made for the Laboratory and Library. School opened in the new building on the fourth inst. under the charge of Prof. BABCOCK.

DETROIT.—The ill health of Mr. T. S. HAMLIN has compelled him to resign the principalship of the Houghton School. The vacancy has been filled by Mr. LUCIUS HALL, a pupil of the State Normal School and member of the Senior class.

CORUNNA.—Prof. T. C. GARNER has resigned his situation in the Union School, and has been appointed County Superintendent. Mr. VAN DORN, of Hudson, is Mr. GARNER'S successor in the principalship of the school.

FLINT.—The High School of District No. 1 has just been furnished with a set of apparatus valued at $365. Among the pieces are a Microscope costing $85, an Air Pump, $70, and an Electrical Machine, $50.

ST. CLAIR COUNTY.—The Belle River District, which has just completed a brick schoolhouse at a cost of $2,000, failing to secure a gentleman to teach, has engaged the services of Miss ANNA OLCOTT, a graduate of the State Normal School. The Director, Mr. HENRY BAIRD, feeling that if Miss OLCOTT did the gentleman's work she ought to have the gentleman's wages, pays her $30 per month, the highest sum ever paid in that District to a male teacher.

DETROIT.—DUANE DOTY, Esq., Superintendent of the Public Schools, was presented on Christmas evening with an elegant silver tea-service.

MATTERS ABROAD.

AMERICAN.

NEW YORK.—The freshmen class of Cornell University is reported as the largest ever received by any American College. Prof. GOLDWIN SMITH is delivering a course of lectures, and Prof. AGASSIZ has just completed a course, for the best notes on which President WHITE has offered a prize of $20, with others of $10 and $5 for the next in order of merit. For notes on Prof. SMITH'S lectures prizes of $50 and $20 will be given.

The Michigan Teacher.

Vol. IV.—YPSILANTI, FEBRUARY, 1869.—No. 2.

The County Superintendency.

Read before the Association of County Superintendents.

BY DANIEL PUTNAM.

THOSE who were familiar with the discussions and resolutions of the Michigan State Teachers' Association about a dozen years ago, will, with little effort, call to mind some very vigorous and earnest declamations upon the *Importance and Dignity* of the Teacher's Profession.

Some of us were younger then, by at least a score of years, than now. As I recall those times it is difficult to resist the conviction that we had just entered the Sophomore season of the teacher's life. There was more of wisdom, in some directions, among us at that period than we have since enjoyed. Some things, not intrinsically great, seemed, at first acquaintance and at a little distance, somewhat larger than subsequent experience and closer observation have proved them to be.

In substance, we resolved that teaching of right ought to be and was a profession, grand, noble, full of all true dignity—that those who taught were abundantly worthy of fair compensation and much honor—that we ourselves were teachers, mainly for the love of the work, very little for the sake of the pay, and, therefore, the world, or so much of it as "read, pondered and inwardly digested" our declarations and resolutions, would understand who and what manner of men we were, walking and

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working among them, and to what high consideration we could rightfully lay claim.

Strange to say, the irreverent world still kept its hat on in our awful presence; and never hastened to make way for us in the private walks or on the public thoroughfares of active life. We had, afterwards as before, to work and not resolve our passage.

During the decade of winters and summers since that epoch, the narrow world in which we have moved has heeded our *deeds*, but not cared overmuch for our *resolutions*.

This tendency to magnify one's office is not a peculiarity of teachers alone. Indeed, as a body they are remarkably free from this common weakness of our nature. Mostly they are a quiet, unobtrusive class of laborers, letting their works and not their lips utter their praises. Down at the bottom of the structure of human society they are fashioning, day by day, the corner stones and pillars of the political, social and moral temple in which we dwell. The work is admired, while the humble workman is forgotten; and the wrought column not seldom stands above and conceals the grave of the sculptor.

The theme assigned for the discussion of this hour might easily lead beyond the limits of strict modesty, in the claims put forth touching the importance of the office of which we are, at present, the representatives. The progress of our term of service has just now brought us into the dangerous, sophomorical defiles —into an atmosphere which is said, naturally, to breed the spirit of over-confidence, and strong assertion, and high-sounding manifestoes.

It will, therefore, be my aim, under these circumstances, to keep well in mind the lessons of other days, and to confine myself to words of "truth and soberness," in the presentation of the thoughts to which your attention is invited.

I am expected to offer, for your consideration, some ideas touching the "*Importance of the Change from Township to County Inspections*," of teachers and schools. The subject is not adapted to the production of what is usually termed a "popular lecture or address." And yet few topics, at the present time, have stronger claims upon the candid and careful attention

of every friend of the public schools and the public school system of Michigan.

The change has not been a hasty one. The county system of examinations and oversight, or its equivalent, just introduced here, has been in operation for years in other States. On trial with us, it has become firmly established there. It has been earnestly recommended, for a long time, by our State Superintendents, and advocated by our wisest and most experienced teachers.

In defending it, and in claiming for its provisions great value and importance, we are not open to the charge of advocating a novelty, or of attributing well settled and permanent worth to a doubtful experiment.

Principles wrought out and established by others, serve our purposes, under similar circumstances, as fully as if we had, by painful effort, produced them ourselves. A foundation firmly laid by a fellow workman, competent to the task, supports the structure we raise upon it, as safely as if we ourselves had carried the mortar and planted the stones.

In every relation of life, and in all departments of activity, we are constantly entering thus, without hesitation, into other men's labors, and gathering the harvest for which they have done the sowing. If, therefore, in this discussion, more is assumed than the limited experience and observation of a few months upon our own narrow fields of labor would warrant, the principles just announced will be a sufficient defense against any possible charge of unfounded and arrogant assumption. It is too much to ask of us to stop to prove what has been amply demonstrated by those who have preceded us along the same pathway. Consequently, brief mention, or none, will be made of points which, at an earlier day, might justly have claimed a full and extended notice.

The *importance* of a change in any system of operations, or modes of labor, or in principles of conduct, depends upon *two considerations*, or facts:

First, Upon *what the change accomplishes, or secures to be accomplished in and by itself immediately or presently.*

Second, *Upon what it promises, or naturally prepares the way for in the future.*

This discussion will naturally divide itself accordingly, and we shall consider, first, what the change from the township to the county system accomplishes, or will secure, if properly and efficiently carried out by competent working men.

And, then, secondly, turn to inquire briefly, what it promises or betokens in the future.

In discussing the first point, I shall simply seek to discover, if possible, the *true position of the County Superintendency in our school system*, and its *relation to the other parts of that system*, believing that I shall, in this way, do a better service to our common interests, than I could by entering into a detail of the duties of the office, and by dwelling at length upon the importance of the advantages secured by the new over the old plan, in its practical operations.

If we shall come to understand correctly this position and this relation, every important element or powers for good involved in the change, will readily and easily suggest itself, as the minute and single separate truths of a science unfold themselves, one by one, when its great central principles have been mastered and are shedding their light along the track of our investigations.

Two grand principles, often hostile, always *apparently* antagonistic, enter into all human systems and organizations; and to unaided mortal vision, these same two warring elements *seem* to pervade the universe, and to come into conflict even in the Divine Government.

One of these is the *principle of personal freedom—of individual liberty*—of the right of every being to seek, in his own way, his own happiness, and to follow the leadings of his own judgment, or will, or passions.

The other is the *principle of centralized power*—of one will ruling all other wills, and making them its subservient instruments to work its own purposes.

We name these principles sometimes Democracy and Absolutism, and insist that they are, as they seem to be, natural and irreconcilable enemies; that there *can* be no union or even peace between them.

Yet the most perfect forms of civil government, and the most efficient systems for the administration of affairs, come, I imagine,

from the skilful mingling of these two conflicting elements—from the wise combination of individual and local freedom with a strong central executive power—a power mighty enough, when the necessity arises, to grasp and hold, and use every single and separate energy of the whole organism.

Practically indeed, absolutism, in its last extremity, has always sought an alliance upon some terms with the popular will; and the freest and fiercest democracy has thrown itself, in times of imminent danger, into the closest embrace of an unlimited and irresponsible dictatorship.

Both these principles are necessary to the safety, if not to the continued existence of human society. The problem is, properly to unite them, to find or construct some bond of union, firm enough to fasten each in its own place, and yet flexible enough to allow one or the other, as circumstances demand, to encroach temporarily upon the province of its rival, and be drawn back again, without endangering the stability or destroying the harmony of the system as a whole.

Finite wisdom has not yet quite solved this difficult and perplexing problem.

A specific application of the great principles thus briefly and imperfectly stated, will enable us readily to determine the position and relation of the County Superintendency to the other parts of our school system, and to estimate, with tolerable correctness, its real importance, by a hasty glance at the work which it is designed to accomplish; and which, to some extent, it is already doing. The general outlines of our system of public instruction were admirably conceived. The two elementary and vital principles of which I have spoken, were introduced, and they have been working each after its own nature and method.

The principle of democracy is represented and embodied in our local school organizations. Each school district, within its own limits, is independent, self-controlled and self-controlling. It does its own will; seeks its own ends by means of its own choosing; acts according to its own wisdom or folly, as the case may be. Its officers are men of its own selection, competent or incompetent, as it pleases to have them, powerful or powerless, just as it cares to support or thwart their efforts. They can do much, little or nothing, as the sovereigns who make and unmake them, may will.

All, or nearly all, the immediate local appliances and means of education are in the hands, and subject to the unlimited control of this independent and almost irresponsible democracy. It builds, or refuses to build, school-houses; it constructs them after fashions and patterns of its own selection. They are made of stones, or brick, or frame, or logs, according to its convenience, or prejudice, or whims. They are commodious, elegant, and finely adapted to the ends for which they exist, or they are little, unsightly, disgusting hovels, unfit for the occupancy of man, beast, or children. Within these houses, thus constructed, and located on a sandhill, in a swamp, close beside the dusty highway,—or on a spot combining quietness, refinement and beauty, a spot where nature and art unite to help in the grand work of unfolding and developing the latent powers and capacities of the body as well as the soul of childhood,—within these houses, this democracy, with only a very slight limitation, puts what and whom it pleases.

Their walls may be blank, drear and lifeless—cold, cheerless and forbidding,—mere mortar and wood; or they may be covered with beauty, instinct with life, objects of love and admiration—just as the democratic element has willed. There may be books and maps and charts and globes, in a word, all the means which science and art have united to invent for the furnishing of the work-shop of genius and the laboratory of mind,—all these may be within and around, or there may be absolutely *nothing;* and no higher power can say, "why do ye so?" It is enough that the element of local independence thus wills.

No force from without can compel a change.

This element, within the limits already suggested, determines the length of schools, decides upon the character and qualifications of teachers, employs and dismisses them, and fixes their compensation. They are its servants, subject to its will and its caprice. It can do, it will do, it does its own pleasure, and there is no power in the State strong enough to prevent.

Our schools are, in the main, what it makes them. It can push them on and up to a grand success; or it can stand sullenly and doggedly in the way of all real progress and all true efficiency.

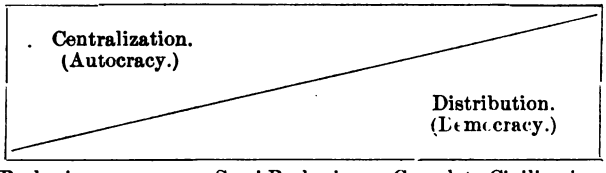
(To be concluded next month.)

CENTRALIZATION IN SCHOOL AFFAIRS.

IN political circles much has been said respecting centralization in governmental affairs. Centralized power is contrasted with distributed power. In one case all authority emanates from a single source and is administered by subordinate officials having no discretionary power; in the other, while in theory all authority is vested in a single man, it is virtually distributed in such a way as to make each subordinate an independent law-giver—dependent upon a recognized head for permission to act, and responsible to it for the manner of acting, but free to exercise power as an enlightened mind shall interpret duty and circumstance. The one regards administrative officers as mere machines—executing with heartless precision the behests of an autocrat; the other is content to mark out the great lines of conduct, recognizes the dignity of independent and enlightened action, and, with a division of power, confers a division of prerogatives. One is despotic, ruling from a love of domination, paralyzes freedom of thought and of action, and converts a man into a mere tool, a *thing*. The other, while rightfully claiming and exercising general authority, believes that men are made more manly by recognizing their manhood, more trustworthy by trusting them, and more profitable servants by stimulating them to self-activity.

It would be wrong to infer from these reflections that centralization is always wrong. How can anything be left to the discretion of another when he is not discreet? or to his trustworthiness when he is not trustworthy? or to his honesty when he is not honest? or to his intelligence when he is not intelligent? The history of the world, past and present, teaches that some nations have been and are best governed despotically. A pure democracy would require every citizen to be intelligent and virtuous, and must then recognize his right to supervise his own conduct; but whenever a citizen is unable or unwilling to conform to the law of right, he is at once subject to the direction of one wiser and better, and the degree in which he is thus subject is in exact proportion to his ignorance and viciousness. As

the number of such citizens increases, power becomes more and more centralized, till, in a barbarous nation, all authority is centered in one source. The law there is, *centralization and distribution of power are reciprocal agents in civiliza'ion.* The relation of these two modes of government to each other and to advancing civilization may be exhibited as follows:



The application of this principle to school officers, as between teacher and pupil, has been made in a former number of the TEACHER (Sept., 1867). It is now proposed to discuss its application as between Principal and Assistant, and between Board of Control and Principal or Superintendent. As among nations of about the same degree of civilization, some governments are monarchical, some democratical, and others of a middle class, so among schools of the same grade, in some the Principal is the overshadowing authority, making minute requisitions upon each assistant and leaving nothing to individual tact and judgment; while in others he exercises only a general supervision, marking out the broader fields of work, but leaving each teacher the duty and privilege of working out the plan according to her own capacity and tact. Some Principals prescribe with the minutest detail the manner of doing each particular thing—the exact amount to be learned in a week or term, the mode of teaching each topic, the time and order of each recitation, etc., etc. In this case all the ingenuity, self-activity and versatility of talent are centered in a single person. Subordinate teachers have no occasion to use their own thinking powers in the elaboration and perfection of plans. Their thinking is all done for them—they are mere wheels in a complex machine which is kept in motion by the hand of one man. Whether this thing is right or not depends upon the kind and amount of culture of those who occupy subordinate positions. If such persons have neither education, tact nor common sense, then they must move as the crank

is turned; if they are moderately endowed with these blessings, they should be allowed a corresponding opportunity to exercise their self-activity; and if they are teachers in fact as well as in name, they simply need guidance, and will be successful just in proportion as they are allowed to do their allotted work in their own way. But what shall be done in the case of teachers who can go no further than they are told? They are plainly unfit for their office and should be displaced. The remedy is a very simple one.

The relation of the Board of Control to the Superintendent or Principal is quite as variable as that just spoken of. In many cases, perhaps in most, the Board confers a generous latitude of conduct. In others it leaves scarcely anything to the judgment or discretion of the Principal. In every case the Principal or Superintendent of a school is made responsible for its success. He is required to secure thorough instruction and discipline in every department. If he fails in any important particular he is liable to instant censure. Let us examine this matter a little in detail. When a corporation has contracted for the doing of a specified quantity and quality of work, how far may it dictate the manner of its accomplishment? In fact, has not this matter now passed entirely from their hands, and can they concern themselves except as to the final issue? A man contracts for a building of a given style and quality. After this can he dictate as to who shall be employed upon the work? A sick man calls the physician. May he direct the kind of treatment he shall then receive? In these and all similar cases in which a contract is made for a stipulated kind and amount of labor, to what extent is the contractor still under the dictation of his employers, or to what extent may he carry forward his work according to his own skill and judgment? In cases of this kind but one reasonable position can be taken. With the making of the contract, the whole manner of doing the work passes into the hands of the contractor. Do these examples illustrate the relation between a School Board and a Principal? Not exactly, but with a slight modification. The Principal is held responsible for the general success of the school, but the Board has the sole power to

legally employ assistant teachers. The Principal may be and sometimes is empowered to conduct the whole school for a specified sum, employing his own assistants. Such a case is exactly parallel with those just given. But in ordinary cases where the Principal is accountable for the general result, and the Board exercise their right to employ subordinate teachers, each party should be allowed to enjoy such prerogatives as will enable both to meet their full responsibilities. No Principal of good sense will wish for one moment to dictate with reference to the employment of his assistants; but considering that he is held to a rigid accountability for the conduct of his school, is it presumption to claim that he ought to be consulted in a matter which directly involves his success? Would it not be palpably unjust to require a person to perform a certain amount and kind of work, and then deny to him all liberty of choosing his tools? It seems to the writer, that a Principal, if worthy of his position, should, by virtue of his office, have a voice in the selection of those who are to assist him.

When this matter is considered in a practical light, it will hardly be denied that a Principal is better able to judge of the ability of teachers for certain places than even the Board. His very position requires him to know the specific kind of service necessary in each department, as well as the qualifications necessary for this purpose. Waiving all question of right, therefore, would it not be expedient or prudent to consult the Principal in such matters? But suppose his advice is based upon personal motives, as a prejudice in favor of an aunt, sister, niece or cousin. What is to be done in such a case? It is possible that such may be good teachers, even though they are related to the Principal, and it is even probable that they are as worthy of employment as the daughters or friends of those who compose the Board. But if his advice is founded upon mere favoritism, the remedy is a very simple one. He is palpably disqualified for his office and should be promptly discharged.

The principle which determines the relative prerogatives of School Board and Principal in the general condnct of affairs

holds good by implication in particular matters. Has the Board any, the least authority, in the classification of pupils, the arrangement of classes, the time and mode of recitation, general exercises, etc., etc. Without doubt these things are wholly out of such control, unless by special contract; and such a contract could not be made, except between absolute autocracy and the most cringing servility. In conclusion, it seems to the writer that the highest success of a school can be secured only by granting to its responsible manager the largest liberty of action, consistent with the nature of his office.

In cities, the reins of power are tightly held; and a teacher's prerogative have scarcely an existence either in fact or in theory. Duties are prescribed with the utmost minuteness, and the sole inspiration is the exact word of the law. How far this may account for the fact that such teachers are intensely conservative, destitute of enthusiasm, and profoundly self-opinionated, is a question which the writer will not press.

The holding of exclusive power on one side, and its complete denial to the other, paralyzes self-activity, effectually prevents improvement, and converts a man into a machine. Centralization, whether in the State, the church or the school, smothers spontaniety of thought and of action. It is the weapon which despotism wields over ignorance, and has no legitimate use in our age which boasts itself enlightened and free.

NEW THEORY OF REPETENDS.

THEOREM. Any repeating decimal can be formed backwards by multiplication, using for the multiplier any remainder that occurs in forming the repetend by division. But the most convenient multiplier is the last remainder but one.

For instance: the repetend of $\frac{1}{7}$ is found by reading the successive unit figures of the *column* here formed, commencing at the foot, thus: .142857, and the *column* is formed as follows. The last figure (q) of this repetend is 7, because since the numerator is 1, the last remainder is 1; therefore the last subtrahend ends in 9, and since the denominator (d) ends in 1, 3, 7 or 9, q is accordingly 9, 3, 7 or 1; therefore, in this case, q is 7. The last remainder but one (s) is also easily found. For since the last remainder is 1, $s=\frac{qd+1}{10}=5$ in this case. The operation is performed thus. Commence with q or 7; 5 times 7 are 35; 5 times 5 (the unit digit of 35) are 25; and 3 (the 10' digit of 35) are 28; 5 times 8 are 40; and 2 are 42; and so on. When the product (including the reserved 10') is 7, we have commenced to repeat the repetend backwards. The reason for this operation is as follows:

COLUMN.
7
35
28
42
14
21
7

Let $\frac{1}{d}$ be any fraction capable of forming a repetend, and where, therefore, d terminates in 1, 3, 7 or 9, and let R be *that* repetend. Let r be any remainder that occurs in forming R by division. Let q be the last digit of R, and let s be the last remainder but one.

Since $\frac{1}{d}=R \therefore Rr=\frac{r}{d}$, and if we reduce $\frac{r}{d}$ to a decimal, we procure for the first digit in the quotient the same digit (and likewise the same remainder) as when we divided *that* r by d in forming R. Hence Rr has the same sequence of digits as R, but commencing with a different digit, viz. that digit which occurs first in the quotient of $\frac{r}{d}$. For instance, let us multiply R of $\frac{1}{7}=.142857$ by all the r's that occur (in reversed order), viz. by 5, 4, 6, 2 and 3.

.142857	.142857	.142857	.142857	.142857
5	4	6	2	3
[.7]14285	[.57]1428	[.857]142	[.2857]14	[.42857]1
7	57	857	2857	42857

Having transferred from the beginning to the end of each product all of the last part of R, we observe that R is reproduced in each case, and that the process of multiplication (where s or 5 is the multiplier) is identical with the operation which forms the *column;* therefore the *column* shows the repetend. Hence the following

RULE.

Ascertain, as above, the values of q and s. Multiply q by s, and continue the process which forms the *column* till you obtain for a product (including the reserved 10', or amount "to carry") a repetition of q. You have then commenced to repeat R backwards.

This method gives great facility in forming some repetends where d ends in 9, because since q then is 1, $\therefore \frac{qd+1}{10}=\frac{d+1}{10}$.

Thus in $\frac{1}{59}$, $s=\frac{59+1}{10}=6$ and $R=$

$$.016949152542372881355932203\dot{3}8$$
$$9830508474576271186440677966\dot{1}$$

which is formed with great rapidity, and the operation requires the formation of no figures except in the result, and the process can be made still easier by noticing that if we divide the amounts

COLUMN.
7÷7=1
35÷7=5
28÷7=4
42÷7=6
14÷7=2
21÷7=3
7÷7=1

obtained in the *column* by q, we obtain the r's in reversed order.* When, therefore, we obtain for a product (including the reserved 10'), q (d—1), we have with the preceding product completed the last half of R, and have commenced the first half, and the remaining digits can be procured by deducting successively from 9 the digits already obtained in R. Observe the process

* By reason of a property to be explained in the April number of the TEACHER. In the meantime, can any reader furnish a solution for publication in the March or in the April number? It affords a fine opportunity for study.

COLUMN	r's or Column $\div q$
7	1
84	12
56	8
77	11
91	13
21	3
14	2
49	7
*112	16
35	5
63	9
42	6
28	4
98	14
105	15
70	10
7	1

of forming R of $\frac{1}{17}$, where s is $\frac{(17\times 7)+1}{10}=12$.

When we have obtained for a product *112 $=7(17-1)=q(d-1)$, we have with the preceding product produced the last half of R, viz.:

94117647, which, deducted from
99999999 leaves

.05882352=the first half.

17) 1.00 (.05882352
85 94117647

150
136

140
136

40
34

60
51

90
85

50

50
34

160
153

70
68

20
17

30
17

130

130
119

110
102

80
68

120
119

1

7) 1.0 (.142857
7

30
28

20
14

60
56

40
35

50
49

1

If we use as the multiplier the remainder next preceding s, the *column* commences with the last two digits of R, by reason of an identity shown below. In order to find these digits, let us represent the successive digits of R (backwards) by q, q'' q''' ..... and the remainders (in reversed order) by 1, s, s'' s''' ..... If (as in R of $\frac{1}{7}$) $s=5$, the preceding subtrahend ($d\,q''$) ends in 10—$s=5\therefore 7\ q''$ ends in $5\therefore 7\,q''=35$ and $q''=5$. Then $s''=\frac{d\,q''+s}{10}=4$. Therefore we commence the column with 57, and use 4 as the multiplier, multiplying the units and tens, and "carrying" the hundreds in the products.

COLUMN.
57
228
114
57

If we use s''' for the multiplier, we find in the same manner that $q'''=8$, and $s'''=\frac{d\,q'''+s}{10}=6$.

The *column* therefore commences with 857 (the last three digits of R) by reason of an identity mentioned above, and shown below in this sentence, and the multiplier is 6, multiplying the units, 10' and 100', and "carrying" the thousands in the products ..... and so on, and we perceive that the operation of forming the *columns* is identical with the processes where R or .142857 is multiplied by 4 (s'') and 6 (s''') as hereinabove detailed; hence the *columns* show the repetend. Therefore, any repeating decimal can be formed backwards, etc., etc. *q. e. d.*

COLUMN.
857
5.142
857

W. W.

GEOGRAPHICAL SKETCHES.

THE NEW AFRICAN LAKE.

WEST of the upper Bahr el Abiad, or White Nile, between it and its tributary, the Djur, lies a forest plain, well watered and abounding in great swamps, This region, almost impassable during the tropical rains, becomes in the hot season a nest of malarial diseases. Traders in ivory and in slaves send out armed bands of Berbers, from Chartum hither, who perpetrate unheard of cruelties and lead immense numbers of the negroes into slavery. Naturally, travel in this region is difficult and dangerous, as the natives see in every white man a representative of the feared and hated slave-hunters. In fact, progress is impossible, unless the explorer, however unwillingly, puts himself under the protection of the armed bands of these men-stealers.

Concerning this region, of which we already had some knowledge from HARTMANN, VON HEUGLIN, the brothers PONCET and others, fuller information has recently been brought by an Italian, CARLO PIAGGIA. He has resided in Tunis, Alexandria, Chartum, and other parts of Africa, since May, 1851. From 1856 to 1860 he made various journeys on the White Nile, in the last year as an aid to the Marquis ANTINORI, in his expedition to the Bahr el Ghasal and Lake Rek. On the 28th January, 1863, he set out from Chartum for the South. South of the Mandu Mountains, which lie in N. Lat. 5½°, E. Long. 27°, he struck

upon a primeval forest which reached a great distance in that direction. This forest is in many places impenetrable, and in thinner wooded parts there is a growth of grass many metres in height. The trees are acacias, mimosa, adansonia and borassus, and give shelter to elephants, rhinocerus, apes, buffalos, antilopes and panthers. The forest forms the northern limit of the Niamniams, a people about whom many mythical stories are afloat, such as their being half dogs half men, having tails and the like. PIAGGIA reached on November 14th the village of the chief TOMBO, and is the first European who ever penetrated here.

The villages of the Niamniams consist of groups of conical huts, those of the chiefs, however, having a vertical wall about the height of a man. After a residence of some days in Tombo Piaggia, set out westward, visiting several villages. In the last reached, Marindo, he for the first time heard of a large equatorial lake, lying to the south, a statement confirmed on his reaching Kifa, two days journey to the west. This village stands on an island, inclosed by the two arms of a river, flowing from S. E. to N. W., and apparently a tributary of the river Buri or Beri, which, according to the accounts of the natives, was a large stream flowing out of the great southern lake. PIAGGIA made an excursion toward this lake in January, 1865, but was compelled to turn back by the warlike condition of the country.

The brothers PONCET, who possess trading stations in this region, have sent valuable facts respecting it to the Geographical Society of Paris. They have revived the views of the Arabian geographers, ABULFEDA and EDRISI, in regard to a union between the Niger and the Nile, by means of a great inland sea. In fact, they believe the lake to be also connected with lake Tsad.

PIAGGIA's journey give us almost positive knowledge that there exists west of the Albert Nyanza (Luta Nzige) a large lake, known to the natives as the Metuasset. According to their accounts, this lake was subject to storms, and the south shore could not be seen from the north. BRUN ROLLET and VON HEUGLIN had heard of this lake, and laid it down on their charts. The above mentioned Buri River is said to flow westward, and appears to be the same of which Dr. BARTH heard, and which he estimated to lie in 3° N. L, and 22½° E. L.

EDITOR'S DEPARTMENT.

WE are glad to record the establishment of two new educational enterprises. The "*Indiana Teacher*," published by Dowling and Shortridge, Indianapolis, and the "*Southern Illinois Teacher*," published at Cairo. We wish both the best success.

Subscribers not receiving their numbers regularly, will confer a favor by notifying us of the fact. All possible care is exercised in the mailing, but we often suffer from carelessness in the distributing offices. If we are informed of the non-receipt of numbers at once, we can replace them, but after a considerable interval this is not always possible.

We find the following brilliant sentence in the January number of the MICHIGAN TEACHER, "*delayed by the want of waiting for a report*," &c. This is certainly a choice specimen of English, and is very becoming in a TEACHER!

The Institute lately held at Greenville, is a good illustration of what an active and skillful Superintendent may do. There are now employed in Montcalm County about ninety teachers. There were in regular attendance at this Institute one hundred teachers. Some of these were ladies who had taught last summer, and will do so next; but all were teachers—wide-awake and eager to learn. So far as we know or have heard, this was one of the most successful County Institutes ever held in our State. At least three-fourths of all the teachers in the county were present during the entire week. This success is almost wholly due to Mr. J. F. COVEL, the Superintendent, who, in all his work, has shown himself to be just the man for the place he occupies.

We invite the attention of our readers to the article on *Repetends* published in this number. We congratulate ourselves on being able to present such a beautiful theorem. The author, Mr. WILLIAM WILEY, of Detroit, has our thanks for permission to publish it.

We find the following in the *Adrian Journal's* report of the Lenawee County Supervisors' meeting.

Supervisor DEWEY offered the following resolution:

Resolved, That in the opinion of the Board of Supervisors of the County of Lenawee, the office of Superintendent of Common Schools does not serve the interest of the public as well as the former plan of Township Inspectors, and that this Board memorialize the Legislature of the State of Michigan, to restore the original plan of Township School Inspectors, believing that it will best serve the interest of the public common schools of the State.

On motion the resolution was adopted.

If notoriety is a desirable acquisition, certainly Supervisor DEWEY and his associates may congratulate themselves in obtaining a very large quantity of it at exceedingly low rates. Within a few days after the County Superintendents' and the State Teachers' Associations had met in Adrian, both bearing unvarying testimony to the value of the Superintendency, this body of educational Solomons ask for a repeal of the law establishing it. The facts and figures brought forward by the Superintendents' who have worked the system, the results testified to by the teachers who have experienced its benefits, the awakening of common school teachers to the need of improvement, as shown by the attendance at County and State Institutes, the increase of students at the Normal School, the formation of Teachers' Associations—in brief the testimony of those who know *professionally* what our schools *were* under the Inspectors, and what they *are* under the Superintendents, all counts as nothing before the promptings of ignorant prejudice and parsimony. How many of those who voted for this resolution know anything of the results produced by the establishment of the County Superintendency? Have they any facts tending to show that the schools are worse taught, that they have less qualified teachers, that they are less frequently visited than formerly? Can they show that the standard of education has been lowered, that educational progress has been arrested, that the educational interest

in their county has decreased? *They can not.* But, according to Supervisor DEWEY and his brethren in office, the Superintendency "does not serve the interest of the public as well as the former plan of Township Inspectors." Surely, if it is serving the public interest to have better schools, better teachers, better organization of educational interests, this merit belongs to the County Superintendency. But where then must we look for the motive of such a resolution. We believe it may be found for one thing, in the prejudice against a new thing as *new.* For another, that the strict examinations have diminished the number of teachers by shutting the schoolhouse doors upon the unqualified and thereby increasing the *pay* of the qualified. And last, but not least, because cousins, sons, daughters, nephews and nieces can not, as formerly, use the school as a means of filling empty pockets, buying housekeeping outfits, and the like.

How did the former system of Inspectors "serve the interest of the public?" When the Inspector was a man who had the schools at heart, and had leisure to devote to them, it served that interest well. This, however, was the exception. Usually it did not serve it at all. The examination was for the most part a farce. Indeed, in the majority of cases, the Inspectors could not themselves answer the questions they put. The real passport to a certificate was not knowledge of the subjects to be taught, not skill in teaching, but relationship, or interest with some member of the Board. Parents used to settle that Jane or Thomas was to "keep school" that winter without any uneasy doubts about the certificate—*that* was a mere matter of form. And if sometimes the outrageous ignorance of a candidate brought a Board to such an unusual pass as refusing the desired paper—happy men were they until the decision was reversed. Collectively and severally they were besieged and berated by the parents and friends of the rejected one. The father stormed at them, the mother wept at them, and the grown up brothers looked unutterable things. The school visiting was, if possible, a greater absurdity than the examinations. It realized the proberb that everybody's business is nobody's business. Paid less than his expenses, what interest had the Inspector in the matter. The law required the schools to be visited at least

once, and it was done, but in the most expeditious manner possible. As to the value of the visits, its minuteness does not admit of estimate. In fact the Inspector's share in it consisted of the "remarks" he was expected to make before he left. How miserable he looked while he was uttering those dreary common places about "the value of education," and what a relief to himself and his hearers when he closed. Badly qualified teachers, schools practically uninspected, unclassified, unprogressive—this is what the supervisors of Lenawee County ask the Legislature to restore.

The short time that the County Superintendents have been in existence would not lead us to look for any great or immediate results from their activity. The educators of Michigan, however, know that these results have exceeded all expectation. Unqualified teachers have been shut out. Plans of study have been adopted in the District Schools—a thing unheard of under the old system. Teachers have been *compelled* to professional improvement. The schools have been thoroughly visited and incompetent teachers at once removed. School houses have been improved, apparatus and maps purchased. Increased regularity of attendance has been secured. The people have been awakened to a greater interest in education. In one word, *progress* has characterized the administration of the Superintendents as surely as *stagnation* that of the Inspectors. It is this progress, this new life, this increased efficiency of schools that Supervisor DEWEY and his associates ask the Legislature to destroy.

The worst feature of all is the implied insult to the Superintendent of Lenawee county, Mr. C. T. BATEMAN. His activity, his ability, his efficiency, are beyond all doubt, and we feel assured that he has the sympathy of all educational men. We repeat it, the passage of this resolution implies an uncalled for reflection upon an earnest and efficient man. It is to be hoped that the Legislature will treat it with the contempt it so richly deserves.

We are indebted to a friend in the western part of the State for the following copy of rules furnished by a school-board for the guidance of the teacher:

EAST DECATUR December 16 1868.

Rules by which you will govern yourself and school.

1st. No pupil will be denied the privelege of recess except for a penalty and then shall have permission to take recess immediately therafter.

2d. No pupil will be required to give an excuse for tardiness or suffer any penalty therefor.

3d. No pupil will be expected to pay any attention to studies or genral exercises not included in the text books used in this school.

4th. You will not appropriate any time belong to school in reading, study or writing not connected with teaching Primary Schools.

5th. Pupils coming into school will have the privelege of getting theier feet warm befor going to theier seats.

Mr. MATTESON, you will please observe the above rules, and much oblige the Board and pupils.

Director, WILLIAM MCADAMS.
Assessor, ELIJAH D. ORMSBY.

In sending the above, our friend inquires: Do we not need a law,—a sort of Civil Service Bill,—to provide for the examination of District Officers by the County Superintendents.

The following selections from an examination paper furnished us by Superintendent PIERCE, may serve as another instance of what the common schools have been saved from by the creation of the County Superintendency:

Q. Give all the classes of *nouns* and an example of each.

Ans. Nouns are classified proper ex Detroit & common John saws wood & verbal John is good.

Q. How do nouns form the plural?

Ans. Nouns form the plural by adding the apostrophe and s, and words of of Greek origin na plural.

Q. How do nouns form the Possessive case?

Ans. Pos case ins formed by adding es or ing to root of its verb.

Q. Give the classes of verbs and an example of each.

Ans. Verbs are classified Intransitive and transitive Ex intrans John saws trans John saws wood.

Q. What is Mathematical Geography? What are Meridians?

Ans. Mathematical Geog deserbs elevations and depressions of land and water. Merdinos are lines passing east and west from the equator.

Q. Between what circles does the Torrid zone lie? How wide is it?

Ans. Torrid zone between Antartic circle and south pole 47° Deg wide 23½ on each side.

Q. Bound New York and France, give their capitals and locations.

Ans. New York north Maine, New Hampshire east Atlan Ocean south New Jessey & Del Capital Albany on the Albany France on the north Asia on the east England Strait of Dover on the south by En Chanel, west Spain capital Paris on the Seine southern part.

Q. Describe the Ganges, Danube, Rhine, Ohio and Rio Grande Rivers.

Ans. Ganges in South america Danube in Eng Rhine in France Ohio West Varginia & flows southwest in C Bay Rio Grande in Mexico flows east into Gulf of Mexico.

Locate Sumatra, Azores Is., Madagascar, Newfoundland and Corsica.

Ans. Locate Sumatra southeast of central america Azores in Russian america Madojascar so west of Africa New Foundland north east of North America, Carsica Located in Medeteranean sea southwest of France.

Bound Russia.

Russ is on the north by North sea & artic circle on the east Berigs trait on the south by north america on west by Asia.

PRACTICAL DEPARTMENT.

ONE of the most *practical* things is the art of asking questions. The Socratic method of disputation is the most perfect illustration of what may be done by an adroit asking of questions. The following dialogue is taken from *Hamilton's Metaphysics*. The object is to convince the learner that *the mind is the man*. Let it be observed that nothing is *communicated* by the teacher. The art consists in asking such questions as will call into use such items of existing knowledge as will form "a train of logical arguments drawn to a conclusion."

SOCRATES. Hold, now, with whom do you at present converse? Is it not with me?

ALCIBIADES. Yes.

SOC. And I also with you?

ALC. Yes.

SOC. It is SOCRATES, then, who speaks?

ALC. Assuredly.

SOC. And ALCIBIADES who listens?

ALC. Yes.

SOC. Is it not with language that SOCRATES speaks?

ALC. What now? Of course.

SOC. To converse, and to use language, are not these, then, the same?

ALC. The very same.

SOC. But he who uses a thing, and the thing used—are these not different?

ALC. What do you mean?

SOC. A currier, does he not use a cutting knife, and other instruments?

ALC. Yes.

SOC. And the man who uses the cutting knife, is he different from the instrument he uses?

ALC. Certainly.

SOC. In like manner, the lyrist, is he not different from the lyre he plays on?

ALC. Undoubtedly.

SOC. This, then, was what I asked you just now,—does not he who uses a thing seem to you always different from the thing used?

ALC. Very different.

SOC. But the currier, does he cut with his instruments alone, or also with his hands?

ALC. Also with his hands.

SOC. He then uses his hands?

ALC. Yes.

SOC. And in his work he uses also his eyes?

ALC. Yes.

SOC. We are agreed, then, that he who uses a thing, and the thing used, are different?

ALC. We are.

SOC. The currier and lyrist are, therefore, different from the hand and eyes with which they work?

ALC. So it seems.

SOC. Now, then, does not a man use his whole body?

ALC. Unquestionably.

SOC. But we are agreed that he who uses, and that which is used, are different?

ALC. Yes.

SOC. A man is, therefore, different from his body?

ALC. So I think.

SOC. What, then, is the man?

ALC. I cannot say.

SOC. You can at least say that the man is that which uses the body?

ALC. True.

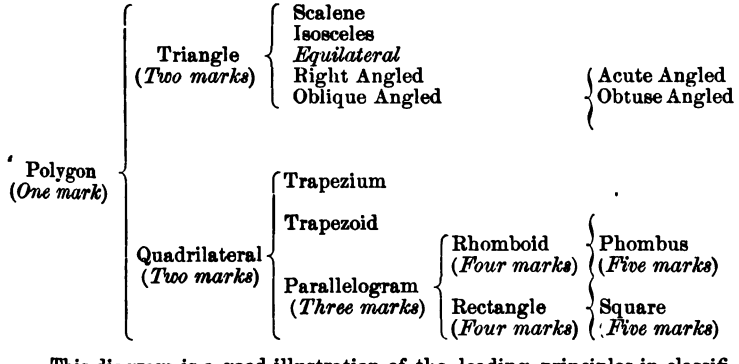
SOC. Now, does anything use the body but the mind?

ALC. Nothing.

SOC. The mind is, therefore, the man.

ALC. The mind alone.

The most successful teachers make frequent use of Diagrams as a means of *classifying knowledge*. A correct diagram will exhibit to the pupil the relation and mutual dependence of the several parts of a subject. As an illustration we subjoin a classification of geometrical figures:



This diagram is a good illustration of the leading principles in classification. Thus, a *Polygon* is a figure *bounded by straight lines*, and has *one mark*. If we now add another, that of being bounded by *three straight lines*, we have a Triangle, possessing *two marks*. Each step in the classification thus adds a new mark, or attribute, thus increasing the *intension*, while each higher class contains fewer *individuals*, thus diminishing the *extension*. Thus the Square has more *marks* (5) than the Parallelogram (3), but the first is limited to a single figure, the latter to four.

The two modes of recitation in general use are, the catechetical and the topical. It is a well settled opinion that the first ought to be chiefly used with children, the second with adults. In primary departments, pupils should be taught by question and answer; in the grammar and the high school grades, chiefly by topic, that is by assigning to each pupil a given subject, and requiring him to communicate what he knows of it. In intermediate schools both methods should be used. Pupils who recite by topic are in great danger of contracting the execrable habit of *drawling*. In natural speaking the mind precedes the voice and arranges the thoughts to be expressed, and the words in which they are to be clothed. When the voice overtakes the mind, as it often does in topical recitation, the last word is *drawn out* in order to meet the one which is being searched for, and so we hear the miserable *and*——*a*, and *he*——*a*, &c., &c.

The following simple experiment will serve to show the tendency of bodies to rotate about their shorter axis. Suspend a common curtain ring by a cord and cause it to rotate by twisting the string between finger and thumb. The ring will gradually assume a horizontal position.

Draw a spiral on writing paper and cut it out. Support its smallest whorl on a pin or wire, and hold it over a lamp or the stove. As the heated air rises it will cause the spiral to revolve. A large one might be suspended over the stove from the school-room ceiling.

A prism for exhibiting the decomposition of light may be easily made as follows. Get three pieces of glass equal in length and width, and also two square pieces. Coat one of the square pieces with sealing-wax. Warm the end of one of the other pieces, and fasten it to the square piece just named. Treat the others in the same way, keeping their edges in close contact. The little grooves that are formed by the meeting of these edges must be filled with melted sealing-wax. Fill the prism with water and fasten the remaining square piece to the upper end with sealing-wax, and it is ready for use.

Book Notices.

MAN AND NATURE. By GEO. P. MARSH. New York: *Chas. Scribner & Co.* Cleveland: *Ingham & Bragg.*

The geographer considers the earth under a threefold aspect. First, as the result of external forces acting upon inorganic materials; second, as itself a force standing in dynamic relations to the organized beings which people it; third, as undergoing modification from the action of these organized beings upon its surface. The last of these received the especial attention of the illustrious RITTER, as the Historical Element in Geography. As a mere animal Man is the creature of his physical surroundings; they are reflected even in his intellectual, moral and theological concepts. From the mastery of his own mind he passes to the mastery of nature. The forces which he once reverenced he now directs—the former god becomes his present servant. He no longer deprecates the lightning's anger, but compels it to carry his messages. His artesian wells remove the danger of desert travel, his steam engine makes him independent of wind and tide on the ocean.

The present work is an interesting and valuable contribution to the study of this Historical Element in Geography. It discusses the action of man upon plants and animals, the destruction of forests in its relation to climate, the recovery of land from the waters by diking and draining, and similar topics. One of the most interesting chapters is that upon "The Woods," in which their action in promoting rainfall is discussed. In the closing chapter on "Projected or Possible Geographical Changes by Man," some of the most remarkable engineering enterprises of modern times are treated. It is one of those books which cannot be read without awakening thought and suggesting new fields of research.

THE NEW ENGLANDER for January is eminently an educational number. In his article upon the "System of Instruction at West Point," Mr. R. P. KEEP discusses the applicability of this system to our colleges. The essential features of the West Point method are a close discrimination of relative merit, a rec[illegible] of this in figures upon an uniform scale, and public exhibition weekly of the results. According to Mr. KEEP, the feeling of emulation thus awakened is not productive of any evil effects. He however admits that the rigid military precision with which intercourse between the cadets and the faculty is carried on, does not develop that feeling of strong attachment to the alma mater so universal among college men. Professor PORTER, in "American Colleges and the American Public," makes a vigorous and effectual defence of the classical system of instruction. He shows that

the outcry in favor of bringing the colleges more in harmony with the so-called modern (?) spirit is no new thing; that its promoters are really attacking the defects of English and not of American colleges, since the admitted defects of the former do not appear in the latter. The persons who in the guise of *educational reformers* wander up and down declaiming upon this topic, are men "whose stock in trade consists of a scanty outfit of a few facts imperfectly conceived and incorrectly recited, in respect to the modes of education pursued in the middle ages. * * * The study of the classics is denounced by the cheap epithets of antiquated, useless and unpractical. The study of the mathematics, which these ignoramuses fail to see is itself the most unpractical of all * * * is commended as practical by way of contrast, because some mysterious connection is supposed to exist between it and the power to build bridges, to construct railways, and to drive mining shafts." Such a vacillating mortal as Mr. LOWE may occasiona ly take this side, but a steady, close thinker like J. STUART MILL knows better. For him "The *only* languages, and the *only* literature" deserving a place in a college course "are those of the Greeks and Romans." Prof. PORTER adds that "the modern educators, who claim to themselves the merit and name of being especially broad and enlightened, take, in fact, the narrowest and most limited views of education and of living." He exalts the importance of the study of language as a means of discipline, and shows that French and German cannot stand any comparison with Latin and Greek in this respect—that in fact they are totally unfit to promote the real ends for which the study is pursued.

The publisher of the *New Englander*, Mr. WILLIAM L. KINGSLEY, of New Haven, Conn., has reduced the annual subscription to $3.00. It is a journal in every way worthy the patronage of educators.

This seems to be a time especially favorable to starting technical journals. The new candidate for public favor is the *Manufacturer and Builder*, published monthly by WESTERN & Co., 37 Park Row, New York. It is a handsome quarto, well printed and illustrated. The January number contains, among other valuable articles, Persian Arms, Damask Steel and Damaskeening, Learned Blacksmiths, Firmness of Paper, Colorado Manufactures, Gun Cotton, Ventilation and Heating by Currents, Bridging the Missouri, The Air in Lecture and School Rooms, Deep Sea Cables, Children's Toys. Future issues are to contain articles by HENRY WARD BEECHER, the first appearing in February.

Messrs. TOWNSEND & ADAMS have engaged Prof. CHARLES A. SEELEY to conduct a new department in the *Chemical News* for 1869. It is to contain "Notices of the current progress of Chemistry and the Physical Sciences in America, Notices of New Books, Review of the Markets, Movements in Trade, etc." There is no other journal in which so full an account of the new discoveries in Chemistry and Physics can be found, and it is almost indispensible to teachers of Natural Science. The reports of the proceedings of English scientific associations is an especially valuable feature. The *News* is published at 434 Broome street, New York. Subscription $5.00 per annum.

SUNSHINE AND SHADOW IN NEW YORK. By MATHEW HALE SMITH. Hartford: *J. B. Burr & Co.* 1868. pp. 712. Illustrated. $3.50.

"Truth is stranger than fiction," is a common-place remark, so often said and repeated as to pass only at a discount. Truth and fiction have become so intermixed in the volumes that stand in file on our library shelves, that the one is often mistaken for the other by the common reader. History and Biography are adulterated by Fancy, to make them palatable to the public—the buyers—and so great is the tendency of the age for high colors, in Literature as well as in Painting, that the mass of writers must obey the popular mandate or die. Dr. SMITH'S book is no fancy sketch, its truth is not varnished nor sugar-coated even, to suit the reader who reads to "kill time." The *Sunshine* is real, and its glare can be felt in the scenes of High Life of our great metropolis. On the other hand, the Shadow, dark as it is, is not vague, for the substance that casts the shade may be seen and recognized. Would any know much of New York as it is, let them read this book. They may here learn of its Good and its Evil, its Preachers and its Demons, its Wealth and its Poverty. A wonderful book upon a remarkable city by an excellent writer.

LAND MARKS IN HISTORY. Part I, ANCIENT HISTORY. Part II, MEDIÆVAL HISTORY. Part III, MODERN HISTORY. By MISS YONGE. New York: *Leypoldt & Holt.* 1868.

We wish to commend these three volumes of Miss YONGE, both to teachers and to private students. The first will find them admirably adapted to the needs of the school room, and the last will be delighted with the clearness with which the great facts in history are set forth. That plan of study is undoubtedly the best, which first gives us a clearly defined notion of the general subject. We wish first to take in a picture at one glance and then study its subordinate features in detail. In History this method make us acquainted with the great epochs, or *Land Marks*, and then give us opportunity to study a given section of the subject, as minutely as time or inclination may suggest.

This plan is very successfully carried out in these works. The events described are selected with good judgment, and each topic is made to stand out in a clear light. The accuracy of the work, and the conscientious painstaking of the publishers, may be judged of from the fact, that after the *Nation* had pointed out a few errors in the first edition, the whole matter was subjected to a most careful revision. This is in every way creditable to Messrs. LEYPOLDT & HOLT, and affords additional proof of their enterprise and honorable business dealings.

THE AMERICAN AGRICULTURIST brings its load of good things monthly. There are no older and better conducted papers of the kind in the country, and few, if any, which have or deserve as large a circulation. Its price, in clubs, is $1.00, and within the reach of all.

THE LADIES' FRIEND for February has the usual supply of good engravings, fashion plates, and entertaining reading matter from such authors as Mrs. HENRY WOOD, AMANDA M. DOUGLAS, Mrs. HARRIET O. SPOFFARD, etc.

The WHITLOCK RECORDER is a Monthly, devoted to Horticulture and Mechanic Arts, and intended also as a medium for making known new varieties of plants and improvements in horticultural and other implements. Edited by the well-known horticulturist, ANDREW S. FULLER, it contains many valuable articles, among others a full report of the meetings of the New York Fruitgrowers' Club. It is published at 245 Broadway, N. Y., at $1.50 a year.

With the new year the *Horticulturist* passes into the hands of Mr. HENRY T. WILLIAMS, and appears enlarged and improved. This valuable journal was started twenty years ago by Mr. DOWNING, and has always maintained a high reputation. The articles are all of a practical character and abundantly illustrated. We are glad to notice the resumption of the architectural department, for much remains to be done toward the improvement of public taste in building. The *Horticulturist* is published at 37 Park Row, New York, for $2.50 per annum.

In the *American Naturalist* for January, Mr. JOHN L. RUSSELL presents an interesting paper upon the "Smaller Fungi—Rust, Mildew and Mould." There is material for several good object lessons in this essay. A. S. PACKARD writes about "Flies," and gives many little known but interesting facts about these pests of the summer days. The *American Naturalist* is not so widely taken as its merits deserve, and this fact has compelled the publishers to advance the subscription rates. It can be obtained with the TEACHER for $4.50.

Our family circles must welcome the new paper, HEARTH AND HOME, edited by DONALD G. MITCHELL and HARRIET BEECHER STOWE, published by PETTENGILL & BATES, 37 Park Row, New York. This paper is a weekly of the size and form of *Harper's Weekly*, largely and well illustrated, and devoted to the Farm, the Garden and the Home. $4.00 a year. We will send it and the TEACHER one year to any address for $4.50.

The January and February numbers of the periodicals for our young readers are at hand. They are an improvement upon those of last year. Their influence must be very great if even moderately taken and read. How many children who now spend their evenings in questionable places and in questionable company would be at home and in good society if they had one or more of these papers for children or young people to read. *Our Young Folks* is indispensable. The *Schoolmate* interests and instructs by its "Rough and Ready" and other stories. *Our School Visitor* is more than ever attractive, and offers a great inducement to subscribe, in its beautiful picture of "Grant and his Family," which looks well hung in the schoolroom. The *Little Chief* and the *Nursery* need but to be known to be valued by teachers, parents and children.

There are other similar papers, but not receiving copies of them we cannot speak of their merits.

EDUCATIONAL INTELLIGENCE.

MATTERS AT HOME.

JACKSON COUNTY.

THE County Teachers' Association held a meeting on the afternoon of January 9th in Jackson. Supt. DARRAGH, Prof. G. S. WHITE, of Jackson, and Prof. C. J. THORPE, of Parma, read essays. Rev. Mr. HOUGH, of Jackson, delivered an address in the evening.

CASS COUNTY.

The Teachers' Association held its third annual meeting on January 22d in the schoolhouse of District No. 7, Wayne Township.

CASSOPOLIS.—Prof. F. A. HERRING, Principal of the Union School, reports the following statistics for the term ending December 23d, 1868. Number enrolled, 203; number belonging, 159; percent. of attendance, 77; percent. of tardiness, .04; number of visitors, 162.

BYRON.—Prof. F. W. HEWES, late Superintendent of Common Schools in Shiawassee County, has taken charge of the Byron Union School.

VANDALIA.—The Union School is under the instruction of THOMAS E. SHAW, assisted by Miss KATE L. BARRETT. The average daily attendance is reported at 72 on an enrollment of 100.

BURR OAK.—A new Union School building is being put up at a cost of $18,000.

PAW PAW.—A site has been selected for the new school house, and $25,000 voted toward the expenses of building.

ONTONAGON.—The Union School has a daily attendance of 150. Mr. L. VAN FOSSEN, of Oberlin, is Principal, at a salary of $1,000; Miss A. F. CASH, in the Intermediate Department, has $450, and Miss LIZZIE BEASER, Primary, $400.

ROCKLAND.—Prof. E. A. WHITNAM, Principal of the Union School, reports an attendance of 309. He is assisted by Miss AUGUSTA HOYT, in the First Primary, Miss SARAH PEEK, in the Second Primary, Miss RUTH PENNICK, formerly of Ontonagon, in the Intermediate. The school has recently acquired an organ valued at $200 and has purchased $117 worth of apparatus from a Chicago firm. This speaks well for the prosperity of the school under the management of Prof. WHITNAM.

GREENVILLE.—Supt. COVEL conducted an Institute at this place during the week beginning January 2d. There were one hundred teachers in regular attendance. Hon. O. HOSFORD lectured on the Elementary Sounds of the Language; Mr. J. R. WEBB, on Reading; Mr. E. F. Adams, on Geography; and W. H. PAYNE, on Grammar and Arithmetic. Evening lectures were delivered as follows: on Monday evening, by Hon. O. HOSFORD; on Tuesday, by W. H. PAYNE; on Wednesday, by Supt. COVEL; on Thursday, by W. H. PAYNE; and on Friday, by Prof. A. A. GRIFFITH. At the close of the Institute a County Teachers' Association was formed. Mr. JONES, of Greenville, was elected President.

The citizens of this place have done themselves great credit, in erecting one of the most beautiful and convenient school buildings in the State. Its cost will be, when finished, about $28,000.

OTSEGO.—Prof. P. A. LATTA, Principal of the Union School, publishes quarterly a School Journal, giving an account of the condition of the school. From this commendable enterprise we learn that during the term ending December 29th, there was a total enrollment of 291 pupils, of whom 71 were in the Primary Department, 78 in the Intermediate, 55 in the Grammar School and 87 in the High School. Among the topics discussed in the journal are Visiting School, Music in School, Reading, and Liberal Education. We are indebted to it for the following facts in regard to schools in Allegan County:

PLAINWELL Union School is under the care of Prof. JOSEPH HICKS.

DOUGLAS Union School has engaged Prof. POMEROY HICKS as Principal.

MANLIUS has a school occupying an excellent new building, with J. H. LAMOROUX as Principal.

WAYLAND has a lady Principal, Miss ADDIE LOOMIS.

MATTERS ABROAD.

AMERICAN.

WISCONSIN.—The State Teachers' Association met at Milwaukee, Dec. 28th, 1868. The subjects discussed were County Superintendency, Education of Feeble Minded Children, Normal School, Teachers' Institutes, Township Organization of Schools.

ILLINOIS.—The State Teachers' Association met at Peoria, December 29th, 30th and 31st. The subjects discussed were, Compulsory Attendance, Co-Education of the Sexes—pro and con., Course of Study for Grammar Schools, ditto for High Schools, Relation of the High School to the School System of the State, Music in Primary Schools, Primary School Government, Graded Schools, County Normal Schools. Addresses were delivered by Dr. J. M. GREGORY, Prof. J. D. BUTLER and Dr. GEO. VASEY. GEORGE HOWLAND, of Chicago, is the next President.

MASSACHUSETTS.—The whole number of students in Harvard University is reported at 1,050, of whom 529 are academics and 521 professional students and resident graduates. There are 138 law students and 308 medical.

PENNSYLVANIA.—State Superintendent J. B. WICKERSHAM, in the thirty-fifth annual report of the department, gives the entire number of schoolhouses at 11,621; number of schools, 13,384; of teachers, 15,505.

MAINE.—The second annual meeting of the Maine Educational Association was held in Augusta, Monday, Nov. 23d. The leading papers were by Mr. C. B. STETSON, on Reading; Mr. G. H. TUCKER, on Geography; Mr. A. P. STONE, on History; Hon. WARREN JOHNSON, Our Common School System; GEO. A. WALTON, Method in Education.

The Annual Report of the Freedmen's Schools shows that on the 1st of July last there were 1,831 schools with 104,327 pupils, taught by 2,295 teachers, of whom 900 are colored. The freedmen, either wholly or partly, sustain 1,325 of the schools, and own 518 of the buildings. Among the schools 539 were graded, 33 being High and Normal Schools. The average attendance was 78,402, being 75 per cent of the number enrolled.

FOREIGN.

GERMANY.—The seventeenth meeting of the General Association of German teachers was held at Cassel June 4th, 5th and 6th, 1868. Upwards of two thousand teachers were in attendance, of whom a fair proportion were *ladies*. The main meetings were held in the Orangery, which was suitably adorned for the occasion. The addresses delivered were by Dr. TIEDEMANN, of Hamburg, upon DIESTERWEG'S motto, "Live in the whole;" Dr. TH. HOFFMANN, upon School Synods; Dr. RIECKE, upon Public Education of Paupers; and Dr. WICHARD LANGE, on The Fundamental Principles of the present Educational Theory and Practice. The last named lecture was the most important feature of the meeting, and excited the greatest discussion. It was the voice of the Free School party of modern Germany against the present reactionary organization of the Prussian and other schools. Dr. LANGE distinguished two kinds of education, the *natural* and the *ad hoc*. Among the laws which control the former are, 1st, Each created being contains at first the germs of all it may hereafter become; 2d, Each human being is the representative of humanity as a whole; 3d, The bodily life develops itself by the appropriation and conversion of fitting food—learning is the appropriation of mental food; 4th, All that lies in a human being must be developed; 5th, Each educational activity must have its ideal, its final aim. In the latter he deprecated the attempt to educate in the direction of sectarianism and the narrow side of nationalism. He showed that while natural education aimed to give each pupil a general human culture, harmonious in all its parts, the *ad hoc* education strove to train for a single definite aim. The former was the education of the mo[illegible]n Pestalozzian school, the latter of the present Prussian school system, w[illegible]ch is merely an engine of statecraft, and strives to make of every child in[illegible]e

land an orthodox Lutheran and a monarchical Prussian. It is not generally known that since 1854 the school systems of Prussia and of Saxony have taken a retrograde step, and that such schools and teachers as HORACE MANN saw no longer exist. The natural sciences are no longer taught in the common schools; full three-fourths of the time is devoted to religious instruction in the orthodox Lutheran sense. In the teachers' seminaries, Psychology, Pedagogy, German Literature, Natural Science, are no longer studied; only the art of *keeping school* is taught. The clergy have full control and inspection of the schools and teachers, and hold the latter in a state of semi-slavery. Teachers are poorly paid, half starved, their every action spied upon and reported to the central authority. The one great cry that goes up from German teachers to day, the burden of every teachers' meeting, is the "Emancipation of the School—emancipation from ecclesiastical and State control." Of this movement Dr. LANGE is one of the great leaders—as Dr. LÜBEN called him during the discussion of his address, "the embodied new education." He left the platform amidst a storm of applause and the warmest greetings from those near him. There is something rotten in this famed Prussian school system we have all been taught to admire, which has been recommended as a model for American educational action. Germans are in the habit of saying that the Prussian schoolmaster conquered the Austrian at Sadowa, but in truth the schools of Austria to day are as *free* as those of Prussia are *enslaved*.

PRUSSIA.—The new school law virtually surrenders the principle of compulsory attendance, since the parents *may*, not *must*, be punished for the absence of their children. Religious instruction and Bible History are yet to have precedence of all other studies. All teachers in a school must belong to the same religious sect. No provision is made for the education of Jewish children.

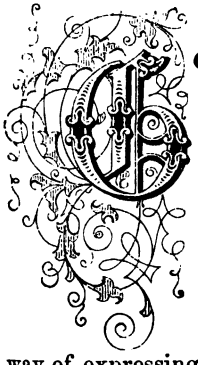
AUSTRIA.—The clause in the new school law which excludes priests from the office of inspector, naturally awakens a strong feeling on their part. One of them in Schnobelin recently preached a sermon in which he asserted that the Emperor had signed the new law under compulsion, that the Pope would certainly condemn it in an allocution, that the separation of the school from the church was an outrage upon the best feelings of nature, since the school was the daughter of the church, that science must be penetrated by faith (in the Romish sense). Gymnastics he condemned because the children would only learn thereby to climb better over walls and into windows, and hence become better thieves. His audience showed strong signs of disapprobation, and he was summoned to stand his trial for slandering the Emperor and bringing the public ordinances into contempt, receiving two months imprisonment as the reward of his reactionary zeal.

The Michigan Teacher.

Vol. IV.—YPSILANTI, MARCH, 1869.—No. 3.

Education Outside of Books.

BY MISS JULIA A. KING.



GOD seldom repeats Himself, yet is always repeating. The variety of His works is equaled only by His power, yet it is a variety controlled by unchanging principles. In the plant world, every flower has its own feature and expression, every tree its characteristics which constitute its *self*. Among the many breathing things, the variety is still more apparent. Every little fly and buzzing creature has its way of expressing its own peculiar *I*. In the realm of mind, the same truth is no less evident. The thinking, willing, feeling human minds are no less diverse than are the bodies which enshrine them. Extravagant diversity! and yet every existence is but a special application of the universal law of growth, in all the domain of earth, air and water not an exception. Never first a loaded head of wheat; never first an oak sturdy and strong; but a tiny germ, slowly expanding, grew into these. Never first a BACON in philosophy, or a NEWTON in astronomy, or a MILTON in a Paradise Lost, but each was once a child mind inquisitive and acquisitive. The human mind is not a room finished and furnished at the outset, neither a granary to be filled, but it is a *power* to be *developed*. Since this is so, the practical question, "How shall it be done?" claims an answer.

Entered according to Act of Congress in the year 1867, by PAYNE, WHITNEY & GOODISON, in the Clerk's Office of the District Court of the United States, for the Eastern District of Michigan

Many plans have been resorted to. A great many schools were quite like Dr. BLIMBER'S establishment, "which was a great hot-house in which there was a forcing apparatus constantly at work. All the boys blew before their time. Mental green peas were produced at Christmas, and intellectual asparagus all the year round. Mathematical gooseberries (very sour ones, too,) were common at untimely seasons, and from mere sprouts of bushes, under Dr. BLIMBER'S cultivation. Every description of Greek and Latin vegetable was got off the driest twigs of boys under the frostiest circumstances. Nature was of no consequence at all. No matter what a young gentleman was intended to bear, Dr. BLIMBER made him bear to pattern, somehow or other. This was very pleasant and ingenious, but the system of forcing was attended with its usual disadvantages. There was not the right taste about the premature productions, and they didn't keep well." The schools, as a rule, trained only the receptive faculties, to the destruction of individuality and self-reliance. Exceptional individuals, true, by the inherent energies of their own minds, expanded into structures beautiful in symmetry and grand in strength. But by far the greater number found the second-hand knowledge which they gained at the schools was dead leaves that fell to dust when wanted for use.

In carefully noticing the steps in the progress of education, it seems a little strange that the practical conclusions should have been so long missed. Nearly one hundred years after BACON demonstrated the principles of induction, JOHN LOCKE first applied these methods of observation and experiment to the obscure workings of the mind. In his remarkable essay he showed with clearness that all ideas are the offspring of perception or conception. His Essay on Education had undoubtedly a practical bearing, and may be said to have largely contributed to bringing about the revolution which has taken place in the training of the young. He advocated a more generous system, both in the subject matter taught and also in the methods of instruction, substituting the pupil's conscientiousness for the old tyranny which so disgraced the schools of the sixteenth century.

Two hundred years after that the ideas which he only half comprehended were successfully worked out by PESTALOZZI. I

should have loved to have been among the little company of students which he gathered at Burgdorf. Without books, he took them out into the fields and the forests of the hill-sides. Wonderful lessons, those! full of all the freshness and beauty of nature. His aim was not so much to store their minds with facts—that was the old way—"but by the potent spell of the magic word *exercise* he worked *mental* power."

Education is growth—a growth of each of the faculties of the mind. Bury a tiny seed in the ground; let the rains fall upon it and the sun warm it. There in the dark it begins to swell with the expanding life in its heart. A little sprout pushes its way up into the sun-light, and another creeps down deeper into the dark. Care for and shield the tender plant, and very soon it will grow into perfection.

So culture is necessary to the growth of the mind. Such culture can be furnished only in exercise. The same wise power who gave the mind its faculties and established its laws of growth, also made bountiful provisions for its culture. The plant needs the mineral substances from the soil, and a thousand fibers suck them up; it needs the gases of the air, and hungry little mouths are open to receive the supply borne on every shifting breeze; it needs the warm sunshine and the falling rains. Beautiful adaptation to the circumstances which surround its growth. So the mind. In the bended bow on the cloud nature has her easy lessons in form and color for the child, and graver questions for the philosopher. There is mathematics in the stars for the simple and the sage. The boiling kettle and the floating bubble hold their treasures for each. Sometimes nature openly reveals her truths, but often God hideth Himself, and who, by searching, can find Him out? Some one said the little is ever found in the great, and the great in the little. Wise provision, for so each faculty finds the exercise proper in kind and quantity.

It seems to me that many failures are made just on this point. The pupils are allowed to be too nearly passive recipients of the good which is so willingly communicated, instead of being led to exercise their own powers in finding out. Education is something more than the accumulation of a mass of facts. The teacher ought to inspire a real enthusiasm of learning; to awaken

a life-giving power, which finds no rest, but continually reaches out after the unknown; to arm the mind with energy and skill sufficient to discover new truths.

Again we are confronted by the practical questions, "How shall such exercise be furnished? How shall such a life be stimulated?"

It cannot be furnished by the *study* of books *exclusively*. We rely too much upon the expressions of other men's thoughts—teach too much second-hand. The greatest of our great thinkers were not made so by books. To throw away the books and leave the child to a blind search after knowledge, would be injudicious, of course. The traveler in a strange land needs a guide; so the child. But it is quite possible to guide without carrying, to direct without doing, to pilot without rowing. The true philosophy of education teaches that advantage should be taken of all the mental capabilities at the time and in the manner in which they manifest themselves. The quick perceptive powers of children, their strong memory and lively fancy, are made much less use of than they might be in imparting knowledge. Children have strong impulses prompting them to learn. They are constantly obtaining knowledge without a teacher. Nature teaches them, and they love her teachings. She excites their curiosity and courts investigation. She beckons to the little ones, "Come and see my birds on their queer little nests, come, and they shall sing for you; my flowers are all in bloom, come and gather them; my insects are all at work, come and watch them; my squirrels are playing in the woods, come and play with them." Their minds are all alive with interest in every object about them, but especially in those which have life. The wee maid in the nursery has a bundle of rags which she endows with life and calls her baby, and Johnny drives his span of chair horses like furious chargers. All these things clearly point the direction that their education ought to take. The skilful teacher will take advantage of this natural love, and by means of it furnish proper culture for their mental faculties, confident that they will learn much more, in a more agreeable manner, and receive much more discipline in a manner more nearly in accordance with the nature of their minds, if a course of lessons on natural objects be sub-

stituted, in part at least, for the old lessons in reading and spelling. The cat and dog, the cow and horse will become the subjects of familiar talks; indeed, everything about the school-room, from the restless little bodies themselves to the wise spiders spinning webs in corners, and the old grey flies on the window, can be called into requisition. They will very readily learn the forms, color, the names and positions of many parts of the body. Thus early will be cultivated the habits of *accurate* observation and *clearness of comprehension*, which is the basis of after attainments.

It is a very mistaken notion to suppose that the *perceptive* powers alone will be called into action. Though this ought to be so in the first step with young learners, very soon a second step can be taken, and the powers of *conception* exercised. The attention may be directed to the actions of the animals, their dispositions, modes of life, food, uses, etc. Every bush and tree, the play-ground and the paths along which the little feet go, are teeming with active life. Nest builder, web spinner, wood borers, masons and miners throng everywhere. Teach the children to find them out. Stimulate them to be little discoverers, not discoverers of *new* knowledge, but of that which is new to them.

A third step will call into life the reason in tracing the adaptation of structure to habits. Nature teaches by suggestive methods. She never perched on some high lookout a full grown telescope, nor set to sail on the ocean a full rigged steamship, and grand as is the wood work of her temples, she has neither Dorian shafts, nor Corinthian columns. But every discovery has had its falling apple, every invention its boiling kettle. Who can tell but in the nice adaptation of certain means to an end some active mind may find the suggestion of a yet grander invention.

Such a course of teaching outside of the books is calculated to give the child *facility* in the use of *language*, simply because his attention is fixed, interest aroused, and thought stimulated, and then led to freely express such thoughts. He is adding to his vocabulary, learning new names and qualities continually, not as abstract terms but as applied to some object. The secret of it

is, he learns to tell what he knows. I heard a little child, five years old, talking to her cat the other evening. The child evidently had an idea in which she felt kitty should be interested. She said, "Kitty do you know why you wear a fur coat and I wear a dress? It is just because my mama can make me dresses and your mama couldn't, so God had to make you a fur coat."

When they have learned to write, the lessons will be reproduced as readily in writing. There are some school rooms from which the terror of *composition* writing is entirely banished. I have in mind now a class which anticipates the hour for the writing exercise. When they first entered the room and found a composition would be expected every week, their faces were pitiful to look at. One day the teacher summoned the class for the first time. Imagine the surprise on every face when a large green larva was released from prison and set to crawling about the table. Soon attention was fully fixed. Twenty minutes was only too short to satisfy all the wonder, draw out the right answers and help to right conclusions. When the teacher said, "Now, little folks, just write on your slates all you can about this larva," every head bent and the pencils hastened to express the thoughts. It has worked like a charm with the class. One of the little girls said the other day, "It's so nice, I never think I'm writing a composition." It takes no coaxing or threatening to procure a nicely written article every week.

This kind of teaching has often proved unsuccessful, but it has been a *sharp instrument* in unskilful hands. There are two ways of conducting such lessons. The one is to make the object a means of *instruction*, building in. It communicates truths while the child is a *passive* recipient. It stores the memory with facts which will lie there unappropriated, cumbrous, undigested. The other way is to make the object a means of *education*, leading out. It seeks first to cultivate faculties and then to communicate facts. The teacher aims to draw from the class all the information which they possess, questions, suggests, but never tells what can be told by them as well. He acts merely as guide, leaving the child to discover, compare and record.

The right aim in teaching from objects is to make the pupil experience by *design* what men first experienced incidentally. It

recognizes the fact that all science rests upon elements as bases, and that these elements are known only by means of our experience with objects.

It may be urged that such lessons cannot be successfully carried out for lack of specimens. True, every school ought to have its cabinet of *Things*, and when once the teachers are awake to the necessity, and become a little clamorous, perhaps, will not the schools make suitable appropriations? But this lack need not deter the teacher altogether, for during several months of the year there will be an abundance of specimens; a live thing is better any time than a dead one, however carefully preserved.

Material objects, then, in the hands of the teacher, may be made to afford culture for the growing mind, and also to furnish the elements which constitute the foundation of all knowledge.

Is this all? If the child were only an intellectual germ, it might be, but it is capable of moral and religious growth, and eternities of years will be none too many in which to accomplish this work. God intended his *created* world should cultivate and refine the tastes of humanity.

Just while I am writing this evening time there is a gorgeous picture in the West. The clouds are like a golden purple veil, closed at evening round the sanctuary of rest. The white smoke from burning home fires curls through the still air, and the snow lies on all the fields. How beautiful, how calm, how pure. Is there no lesson in it? Nature has her galleries of art, pictures and statues the rarest. The door is always open, but how few the ingoing feet. Oh! teach the child to drink in, to know and love the beautiful.

It seems to me that an intimate acquaintance with all created forms, especially the animals, must engender kindly and humane feelings. Animals have rights; cannot children be taught to respect them? If by any means their naturally cruel dispositions could be corrected, it would be no inconsiderable point gained.

Besides these things there is a deeper and holier influence going out from the world of nature. Each creation is a voice plainly revealing the thoughts of God. The name of a flower is very little, the knowledge of the physiological structure of animals is very little. The eye discern the outward form, the delicate color, etc., but so often fails to read the truths which are

revealed. The one who sees with the spirit, hears and understands with the heart, will tenderly recognize the presence and activity of God-given life, and love it in all things that exist. *Christ* in the soul loves *inanimate* things, because it recognizes the eternal goodness and wisdom shining in the heart of the flower, making it more glorious than Solomon in all his glory. God who takes care of trees and flowers, takes care of animals also in a special sense. And, I think, a recognition of their rights, a true sympathy and love for them, is a part of the inward experience of every one who has been born into the essential Christ life. It is said that to ST. FRANCIS all nature was full of God, and that his religious consciousness, grounded on and quickened by the inward realizations of celestial love, was so expanded that it embraced everything, animate and inanimate, men and animals, and with such intensity of emotion, that in the fullness of his heart he often applied to all alike the sacred name of brothers and sisters. He saw good in everything, because he saw God in everything. He thought, and I think it must be true, that all departments of nature were designed to be connected by a community of life; and that the broken bonds were waiting for restoration, and too, that man with love enough and faith enough could again control the wind and waves, and the lower animals would sympathize with his sorrow and minister to his necessities.

I would not for a moment intimate that the heart of the child is regenerated when you have awakened his love for or his appreciation of God in nature. "Ye must be born again," is written too plainly elsewhere. Religion, pure and vital, is something more than a sympathy with nature, or a devoted love for all her forms. But the man's character is formed by his loves. These loves are awakened mainly by the tendency given to the motion in the heart of a child. Before he can *love* God he must *know* him. The Christian teacher who sees God everywhere, loves him in every thing, whose life pulses beat in deep sympathy with the life in nature, must be able to lead the child to understand the thoughts of God as written in the alphabet of nature. This *positive* knowledge gained by observation, may prove the basis of that right knowledge which is life eternal; may awaken a love which shall be the constraining power in the heart of the man.

THE COUNTY SUPERINTENDENCY.

Read before the Association of County Superintendents.

BY DANIEL PUTNAM.

(CONCLUDED.)

At the other extreme of our system of public instruction, representing and embodying the principle of absolutism, of central power, stands, clothed with such authority and prerogatives as the "constitution and the laws" have given it, the *State Superintendency*—the executive office of our school organization; and above and beyond its executive character, designed, I suppose, to be at once the *head* and *heart* of the organism—to supply, largely, the brains and the propelling force for the educational machinery.

The State Superintendent has, by law, "the general supervision of public instruction," and is to originate "plans for the improvement and management of all educational funds, and for the better organization of the educational system" whenever any improvement can be made. He can issue such "instructions relative to the organization and government of primary schools, and the course of studies to be pursued therein, as he may deem advisable."

Within the limits prescribed by the laws, this officer, placed at the centre of the system, is as free, as potent, as mighty for good or evil, as the democratic element at its extremities.

He is the natural and necessary complement, or counterpoise, of that element.

He is to work upon it, and by it, and through it. So far as need be he is to mould it according to his own will, and use it for his own purposes.

As the members of the human body, with all their wonderful adaptations and complicated movements, are but the passive instruments of the central will, so these widely extended members of the educational body, with their diverse and often perplexing movements, are to be made the voluntary and ready instruments of a will, higher and wiser than their own.

As every beat of the central heart, in these curiously fashioned organisms of ours, sends, with mighty power, the pure blood of vigorous life to the remotest and minutest parts, so every pulsation of the central heart of our school organism should send new life to all its remote and widely separated extremities.

All wills should thus become one mighty will; all hearts thus one great, universal heart in that organization which has for its grand object the elevation and instruction of those who, to-morrow, are to be the state, and to rule it. Thus, and only thus, our system of public instruction becomes one beautiful whole, animated by one common vital principle, and seeking the accomplishment of one great purpose.

To secure such a result, the separate parts of our system must be properly bound together. Between the head and the hand, between the heart and the extremities, there must be some living medium of communication.

The human brain and the human arm are alike powerless, however perfect the bones and joints and muscles, if the connecting nerves are severed or paralyzed. The heart could send no quickening current of life to the limbs if the intervening arteries were cut or tightly bound. However insignificant to appearance, nerves and arteries are absolutely essential conditions of motion, or even of life itself.

The great want in our school system, hitherto, has been some bond of union between its parts, parts in themselves excellent, but acting each in its own way, having really but little common life or common sympathy.

The blood in the heart might be instinct with health and vigor, and the heart itself beating with resistless energy, but the arteries were too few and too small, and only scanty streams reached the extremities. The central will might be strong and active, but the nerves were wanting to convey its volitions. The head and the hand were disunited, and so nearly powerless.

The State Superintendent has had no means of reaching effectually the scattered districts and teachers of the State. His purposes might be noble, and his plans for their attainment most admirable, but the means for the accomplishment of his purposes and for the execution of his plans, were sadly deficient or entirely

wanting. Personally he could not visit and supervise the schools to any considerable extent. Experience has proved that, under the system of township inspection, there were no other officers by whom these duties were properly performed. Personally he could not examine the great army of teachers mustered for the warfare against ignorance and vice. Experience has made it certain that, under the old system, this work was not efficiently done by the agencies provided. Personally the Superintendent could not, by Institutes or other means, impress himself upon the mass of instructors, or permeate them by his own spirit. Set to the arduous but grand task of elevating the character of the schools, of correcting and enlarging the views of their officers, of quickening the minds and inspiring the hearts of their teachers, he had no means adequate to the work. He and they were at too great distance from each other for much personal intercourse, and there was no sufficient medium of communication between them. There were no nerves to transmit his will, and no arteries to convey his life.

Just here and now, in our discussion, we are able to see the true *position and relation* of the County Superintendency in our school system, and from this view we can estimate the real importance of the change by which it has been introduced. It stands between the two extremes of our system; it serves as a bond of union between its two grand but separated principles; it joins the head and hands, the heart and extremities, in the beautiful organism; it supplies the nerves and arteries to the educational body, and makes one harmonious and efficient whole of the before dissevered parts. With some slight changes and modifications in minor details the County Superintendency will, I believe, admirably fill the position which it is designed to occupy, and will meet every essential want of the relationship which it sustains. Its plan is not perfect; it will not satisfy all the indefinite expectations concerning it; it will fail, in some localities, and under some circumstances, to meet the demands made of it; its duties will not always be well understood or wisely performed by those charged with their execution. There may even be a reaction of public feeling which shall temporarily sweep it away. But it, or something like it, will, in the end, become a permanent part of our State system of education.

In view of the conclusions already reached—if those conclusions are correct—it is hardly necessary to add even a word to impress more fully, upon any one, the *importance* of the introduction and establishment of the county plan of oversight and inspection.

The County Superintendents are, by the law which creates them, made "subject to such rules and instructions as the Superintendent of Public Instruction may, from time to time, prescribe." Through them the central life and heart of our school system can make itself felt readily and directly to the remotest extremity. The State Superintendent is their lawful and natural head. His rules are their laws; his regulations are their modes of action. From him they will rightfully anticipate counsel and direction; from them he will expect, in return, respectful deference and intelligent cöoperation. It is, therefore, of the most vital importance that he and they, each in the place assigned, work harmoniously to secure the common ends of their common labors.

From this discussion of what the introduction of the county system is calculated to accomplish, and will finally secure, we turn to inquire for a moment, *what it promises in the future.* That which is, in itself, small and of little worth, often foreruns and betokens things of wondrous value and importance. The tiny shoot promises the sturdy stalk; the bud comes before the flower, and the flower precedes the fruit. The dim twilight heralds the approach of noon-day, and the solitary cloud forebodes the tempest. So in the political, social and moral world, the apparently trivial often prepares the way for the most destructive or most beneficient changes. The penny stamp or the two-penny tax may betoken the severance of an empire and the founding of a nation. An ill-judged sneer or a hasty word may kindle a social conflagration. Peter's pence or the sale of a petty indulgence may prove the first act in a world-wide drama in which priests and princes are actors.

We count wrongly when we estimate things simply for what they are in themselves alone. The whole, of which they are only parts, gives them value and importance.

If the present change in our educational system stood alone,

or could stand alone; if it neither followed nor forerun anything else, important as it is, it would be of comparatively little worth. What has gone before, and what shall come after, will give us the sum of its true value. What, then, does it promise in the future? What does it betoken? It promises—and in this lies its grandest good—an end of that stolid conservatism which has marked our educational history for the last half-score of years. We have, as a State, been standing still, refusing to take one single step in advance, on the plea that "well enough should be left alone," and that our system belonged to the "well enoughs" and must not be desecrated by sacreligious hands. Up to the last session of our Legislature it had been, for several years, quite impossible to win from this spirit of self-satisfied complacency the slightest concession to the spirit of progress and improvement in the department of public instruction. I would not needlessly disturb, or change, or modify the work of the good and wise who have gone before us. I respect and reverence the past; I would not cut loose from it, and push out into the future unaided and unwarned by its history and experience. Its lights may be behind us, and ever receding; yet they send some clear rays along our pathway into the untrodden, coming years. The statesman of our early days was not unwise when he borrowed the lamp of experience, to illumine the dangerous ground along which he was cautiously treading. And divine wisdom has declared that "the thing which has been is that which shall be." The grandest lesson of all the past, stamped in living characters upon every page of its history, speaking out from the very silence of its mouldering ruins, is the warning it utters against the folly and madness of looking ever backward, and clinging to the empty *shadow* of former good when the *substance* has departed. Nothing can be more fatal to an individual, to a society, to a community, or to a State, than to suppose the acme of all perfection has been reached in the organization of any department of human activity. What was highest and best yesterday may be useless to-day, and a positive obstruction in the way of human progress to-morrow, fit only to be placed beneath our feet that we may reach upward to grasp the higher and nobler yet above us. Everywhere else, apparently, men admit this ob-

vious truth sooner than in the department of education. On the farm and in the work-shop, new modes and means are eagerly sought and readily embraced; no over-foolish fondness for the old blinds men there to the value of the new. The rude implement, worn by the painful toil of the sire, is not, therefore, kept sacred for the service of the son. The good of yesterday, without a sigh of regret, is laid aside for the better of to-day, and that, in its turn, for the improvement of to-morrow.

The change of which we have been speaking allows us to hope that the same practical wisdom, or, in plainer terms, every-day common sense, is to be applied to the machinery of our schools, to the means and modes of instruction, to the provisions and forms of laws, and to all that pertains to the efficiency of the system.

In conclusion, it may not be inappropriate to remind ourselves and our associates that the *immediate* success of this change depends, in no inconsiderable degree, upon the wisdom and faithfulness of those to whom the work of the County Superintendency has been, for the time, committed. The task is not easy; the labor is not light; the duties are not clothed in the garb of poetry, but in that of the plainest prose. In the time given us, the workdays are abundant and the holidays few. But, for the present, in the allotment of posts in the grand army of educational soldiers, it has fallen to us to lead in the van of progress against ignorance and prejudice. Let us, then, not prove ourselves unworthy the honor of such a position, or unmindful of the responsibility which it brings, looking beyond and above all questions of present compensations or rewards, to the highest and noblest reward of all, the simple "well done" of the great common Master and Teacher of our race.

History: How to Teach It.

BY JOHN J. ANDERSON, A. M.

From a Paper read before the State Teachers' Association of New York. Published by permission.

HISTORY may be taught with one of two objects. The story may be read as one would read an interesting narrative, or work of fiction. The actors come, perform their parts, and then disappear—to be followed by others who will, in like manner, perform their parts. Nations may be born, may grow, conquer, and be conquered; battles may be fought and won; thousands may be slain, tens of thousands reduced to slavery; and yet these things may pass before the mind as a panorama, without date or place, with no logical connection, no lesson whatever in them. History, so received, can be little better, if any, than pure fiction. The facts, as actual causes and effects, as the actual teaching by example, are not rightly impressed upon and appropriated by the mind. They do not instruct nor strengthen. They rather dissipate and weaken.

Or history may be received in another way. The story is of realities. The actual life of a nation is depicted. Every fact has a place in geography, and every incident a position in chronology. The statement is welcomed with just that kind of relish to the lover of history that the mathematical deductions bring to the mathematician. The truth, with its two identifications of time and place, is as much prized by the one, as the truth, with its supports of axioms and demonstrations, is regarded by the other. A knowledge of history, thus acquired, cannot fail to be useful, permanent and available.

I have found in my experience, that the teacher who provides his pupils with a small text-book, takes the first step towards success. This is true as regards all subjects taught, but particularly so as respects history. And the teacher who prefers to have no book at all rather than one of bulky dimensions, is wiser than he who selects for his pupils the volume of large size. When, therefore, the aim is to impart a limited knowledge of history, or that knowledge, in kind and quantity, which will give the pupil

a desire and determination to acquire more, a small book, containing a clear and methodical outline of the subject, should be put into his hand. One can explore a valley—its woods, glens, lakelets, and streams—with much more intelligence, accuracy, and rapidity, after he has been to the top of a neighboring mountain, and, looking down upon the whole scene, comprehended the outline of the region he is about to enter.

One of the prerequisites of success in teaching history is that the instructor should have a fuller knowledge of the subject than can be obtained from the school-book only. He ought to be familiar with the story in its completeness, as told by one or more of the best authors, and thus be enabled to use the text-book as it ought to be used—not as sufficient in itself, but as an aid in his hands. Any teacher who is content to know no more than can be gleaned from the small class-book—who is satisfied to be no wiser than those whom he is called upon to teach—who is willing to teach *all* he knows and there stop, is certainly out of place in the class-room, is a disgrace to the profession, and ought to be compelled to seek some employment in which he could gain an honest living. And any teacher who undertakes to teach history, or any other subject, depending *entirely* upon the school-book, will do as thousands have done before—utterly fail.

Having said thus much, let me mark out a plan—my plan—for teaching history:

1st. A lesson is assigned the class, which is at once read with as much care as the regular reading lesson, *all the proper names being carefully and correctly pronounced.* Should the teacher neglect to attend to the pronunciations in this timely way, his pupils will, in most cases, contract habits of mispronouncing, calling Charlemagne (*shar'le-mahn*) Char-le-mag'ne, Genoa (*jen'o-a*) Ge-no'a, Powhatan (*pow-hat-an'*) Pow-hat'an, and falling into hundreds of kindred errors, which can only be subsequently corrected, if at all, by much labor. It is much easier, we all know, to go right when one is *started* right, than it is to get right and keep so after the wrong habit has been put on. In addition to the lesson found in the book, the instructor should, as he may see fit, offer such information, verbally and briefly, as the

subject may require. This, probably more than anything else, will tempt the learner to seek in larger volumes for still further information.

2d. In giving out the lesson, let the map showing the location of the places mentioned be assigned, to be drawn by all the pupils of the class. The practice of drawing maps, as here indicated, deserves to be commended. It is one that will insure certainty in the acquisition of that part of historical knowledge which gives to the other parts a large share of their importance, and which gives to the places of history their great interest. The teacher, or one of his scholars, ought to draw on the blackboard, with a free hand, one or more maps, showing the location of the places mentioned in the lesson. This, after a little practice, can be done in a very few minutes. More can be taught, and often better, through the eye than in any other way; and it is true that an interest can be awakened by delineating on the blackboard the march of an army through a country, which could not be aroused by the unassisted narrative.

It is certain that no historical fact can be fully appropriated by the mind without being associated definitely with place. Can the mind be said to know that Cæsar crossed the Rubicon, without knowing whether the Rubicon was a lake or bay, a country or a river, and then getting an idea of its situation? But let the river be seen on a map, forming—during the time of the Roman republic—the boundary between Cisalpine Gaul and Italy, and flowing into the Adriatic; and then we can clearly see Cæsar approaching from his province on the North, pausing upon the banks of the stream, and then, with an air of stern resolve, plunging into the water, exclaiming, "The die is cast!"

I once visited the school of a friend, happening into his most advanced class while he was hearing a lesson in history. After the recitation, I accepted an invitation to put a few questions to the class. The examination that followed was something like this: *Question.* Can you give me an account of the battle of Bunker Hill? *Ans.* Yes, sir.—*Question.* Well, before you commence, I should like to have you tell me *where* that battle was fought. *Ans.* (with some hesitation, and an interrogative intonation.) At Charleston.—*Question.* Where is Charleston? *Ans.*

In South Carolina.—*Question.* Will you please, now, give me an account of the battle? In the course of the narrative that followed, it was stated that, during the battle, the British set fire to Charleston by means of shells thrown from Copp's Hill, Boston. (A shell fired from Copp's Hill, Boston, setting fire to the city of Charleston, South Carolina!) Here a serious defect in teaching was certainly made manifest. The geography had been neglected.

3d. We will now suppose the class is before the teacher, ready for recitation. His first business is to examine the maps. These he criticises and commends, awarding credits or places according to merit and custom.

4th. In hearing the lesson the teacher should stand—not sit—without any book whatever in his hand, so that he can look straight into the eyes of those he is questioning, and thus be in full sympathy with them. He should have such a grasp and knowledge of the subject as to enable him to put questions without reference to those in the book, and as circumstances may require. I would not entirely ignore the questions in the book, but would not depend upon them to any considerable extent. They are there not so much to aid the teacher as the scholar. Their chief office is to point out and call attention to important facts. The teacher who depends upon certain set questions, will find, when the day of examination comes, that he has been cramming words into his pupils rather than imparting facts and thoughts, and in this way feeding their intelligence.

5th. The geography of every place mentioned in the lesson should be well understood.

6th. The lessons of a period should not be considered as completely mastered until they have been reviewed chronologically. In assigning a period or association of events to be reviewed thus, two things are to be avoided: The pupil should not be required to learn dates unassociated with the narrative, nor should any system of mnemonics be employed which requires the use of facts or statements not belonging to the history. In the one case the mind is burdened with useless lumber to the overtasking of the memory; and, in the other, it is confused with a multiplicity of facts, perhaps of little or no importance. A few

prominent events should be selected as stand-points, from which, on the one side, may be seen a train of causes; and, on the other, a series of effects or consequences. In this way, whatever is really important will be readily remembered and judiciously appropriated.

ORAL INSTRUCTION.

BY MISS S. C. STERLING.

THE transition from the child's home life to the dull routine of school should be as gradual as possible. Before entering school his whole life has been spent with nature. She has wooed his infant mind with a thousand beauties, and his intellect has been constantly expanding with new facts and principles which he has every day gathered from her store-house. He has chased the butterfly, romped with the dog and cat, sported with the birds and flowers; why, then, should he be suddenly taken from all these, and from the home lessons which he has all his life received, where truth and knowledge have been presented in their most beautiful and attractive forms, and condemned to sit in unbroken silence and in almost unbroken idleness, on unbacked benches, with his feet dangling above the floor. School presents to his mind no attractions. Twice a day he stands at the teacher's knee and repeats certain unmeaning characters, and these are afterwards combined into still more unmeaning syllables and words. After this come set lessons in grammar, geography, etc., while not a single bare idea comes to arouse his sluggish and lethargic mind.

The consequence of this is weakness of body and unsoundness of intellect. The seeds of disease are sown for the whole of his after life, and he looks in vain for the realization of those bright visions of knowledge by which his parents and teachers have lured him on to the successive stages of school life.

This is too true a picture of primary schools, but it does seem that a better state of things might exist.

The work of the primary teacher is not simply to teach *a*, *b*, *c*, though this should, of course, receive its legitimate share of attention, but, more important than this, the mind must be *fed*, the heart *cultivated*, the morals *improved*. Every child has a threefold nature—moral, intellectual and physical, and each of these should receive its due share of attention. Intellectually, the faculties should be cultivated in their natural order—first, the perceptive and conceptive faculties, and second, the faculties of reason and comparison.

The first business of the primary educator should be to awaken observation, curiosity and activity in the pupil. He should be taught to do for himself, and to discover for himself. His mind must be constantly aroused to a desire for more knowledge, and he can thus be led on to still higher pursuits with comparative ease.

In the cultivation of these faculties, language is most important and should receive especial attention. It should at first be very simple and adapted to the age and development of the child. They should be given new ideas, and taught to clothe them in new words. Thus their vocabulary is increased, and their eager desire for knowledge is gratified.

But paramount to all this is a sound body, a strong limb, a happy heart, a cheerful countenance, and a sparkling eye. The physical needs of the child are above all others. Every primary teacher should remember that *change is rest.* The subjects of instruction should frequently change; the exercises should be short, and interspersed with various *physical* exercises, which will bring into play all the muscles of the body, thus tending to the development of the perfect man. "*Mens sana in corpore sano!*"

He should be counted the best teacher who can show the healthiest, strongest and happiest flock, and on examination day weight rather than wisdom should bear the palm. To do this, it has been thought by some that oral instruction is better adapted than any other.

This oral teaching should extend at least through the first three years of school life, and it may be carried much farther with great success. During this time books should be entirely

discarded, with the exception of a reading book, which may be taken up at the close of the first year. This oral teaching embraces a *regular* and *systematic* course of conversational lessons, comprising facts and principles in natural history, botany, geography, etc. It also embraces writing, drawing, spelling, language and number, all of which are taught *orally*.

By conversational lessons is not meant a rambling discussion of these subjects, but a single point should be taken for a lesson, and every question should tend to the development of that one single idea. Ideas first, and then the expression of the idea. Let nature be followed, and she will prove an ever safe guide.

The following is an illustration of one of this conversational series of lessons. It is a first step lesson adapted to children six years of age, who are supposed to have attended school about three months. Second and third step lessons will afterwards be given on the same subject, which will show the progressive character of these exercises.

ANIMALS. THE LADY BIRD. PARTS, POSITION AND DESCRIPTION.

The teacher arranges the children in a class, gives a number of lady birds* to different ones and says, "What have you?" The children say, "Bugs." *T.* What name can you give to these bugs? *Ch.* Lady bugs. *T.* Instead of calling them lady bugs you should call them lady birds. What are they? *Ch.* Lady birds. *T.* How many ever saw one before? Class raise their hands. *T.* Where have you seen them? *Ch.* On bushes, on the ground, on people's dresses. *T.* How do they get on the dresses? *Ch.* They fly there. *T.* Now, each of you may look at the birds you have in your hands, and find some part. One child finds the head. *T.* Every one may show me the head. What have you found? *Ch.* Head. *T.* You may now find another part. Another child finds the body. *T.* You may all show me the body. What part do you call that? *Ch.* Body. *T.* Some child may find another part. *Ch.* The wings. *T.* Yes, you may all show me the wings. The children are called upon in this manner to find the different parts until all have been

*When it is not convenient to have the object, a picture of the object may be used.

found and named. The teacher now calls upon different children to point to each part and name it, thus: "Head, body, wings, eyes, legs, and claws."

Position.—The teacher may now ask one child to look closely at the eyes and tell where they are placed. They say, "The eyes are on each side of the head." *T.* You may all now tell me where the eyes are. They repeat together, "The eyes are on each side of the head." *T.* Another child may tell me where the legs are. *Ch.* The legs are below the body. *T.* Mary may tell us where the claws are. *Ch.* The claws are at the ends of the legs. *T.* Where is the head? *Ch.* The head is at the end of the body.

If the pupils do not give these answers readily, the teacher must lead them to the proper reply by questions.

Description.—The teacher may now ask what color the body is. The child will say, "It is red dotted with black." *T.* Who can describe it better? *Ch.* It is red spotted with black. *T.* Look at the legs, and tell me what color they are. *Ch.* They are black. *T.* What else can you say of them? *Ch.* They are short. *T.* Now tell me all about the legs. *Ch.* The legs are short and black."

The teacher may now review them on all the different points until each one is familiar with the whole lesson.

It should be remembered that the object of these lessons is not to simply teach the names of the parts, their position and description, but by calling their attention to these things, to awaken their observation and curiosity, and incite them to a desire for greater knowledge.

EDITOR'S DEPARTMENT.

WE have discovered that some of our subscribers have not received their numbers, because they have changed their residence and have not notified us of the fact. They remind us of the lady who traveled from New York to St. Louis and paid no attention to her baggage, supposing that the railway officials would make all necessary transfers without any trouble on her part.

Every friend of liberal education is glad to know that the Legislature is making a generous provision for our public institutions of learning. The annual sum of $15,000 has been appropriated to the University, besides the $35,000 already accumulated, without any proviso. The Agricultural College has been granted $20,000 for two years, and $30,000 for building purposes. The State has thus, by its own act, assured the support of these schools, and their prosperity is vouchsafed beyond question.

We have set our heart on obtaining a list of two thousand subscribers for our Fourth Volume. We began the present year with nearly five hundred more names than we had at the corresponding period one year ago. We shall be grateful to any of our friends who will assist us in extending the circulation of the TEACHER. We would especially ask the Principals of our larger schools and the County Superintendents to lend us a helping hand. We have no means of doing this work ourselves, and so are obliged to depend upon the kind offices of friends.

We have not yet received from the publishers the Essay which is to be given to each of our subscribers. We shall procure a sufficient number of copies as soon as possible, and distribute them as we did the "Unconscious Tuition."

We invite the attention of our readers to the *Method of Teaching History*, published in this number. The writer is the author of a new series of Histories having peculiar merits. This subject has not received half the attention which it deserves, but we hope it will soon share the time now given to so little purpose to the inevitable Grammar and Geography.

A friend sends us the following, clipped from a recent issue of the New York *Daily Tribune*. We leave our readers to form their own opinions as to its genuineness.

HOLLY, Mich., Dec. 30, 1866.

MR. EDITOR: I propose to spel with enny man, woman, or boy in Okeland County for $100 dollars aside, the words to be celected by a commity of literary gents, and the prise to be rewarded by the empires to the one who mises the fewist words. If you here of enny one who darrs to take up this chalenge, let them pitch in, solus bolus. I'm redy.

Yours, etc., etc.,

ABSOLEM SHEAPE, District School Teacher.

Prof. CURTIS has resigned his position as Superintendent of the Schools of Bay City. He was led to this step by the persistent efforts of certain members of the Board of Education to embarrass his action and destroy his usefulness. Mr. CURTIS' offense was the *reading of the Bible in school;* and because he would not prove traitor to his conscience he was subjected to all the petty annoyances which little minds know how to employ. Mr. CURTIS did his whole duty faithfully and well, as long as he remained, but when he saw that those in authority were industriously undermining his usefulness, he wisely resigned a position which he could not retain without a sacrifice of principle.

A very nice scheme is now before the Legislature, the purpose of which is to give to each of the five colleges in the State, Kalamazoo, Olivet, Albion, Adrian and Hillsdale, $2,000 per annum, on the pretense of their severally organizing a "Normal Department." Enlarged facilities for the education of teachers are much needed, and if these colleges could be paid a fair equivalent for work actually done, and if those who receive such instruction could be entitled only to such privileges as they might justly claim, the project would be commendable; but when it is probable that such a "Normal Department" would be one chiefly in name, and when it is proposed to place such adventitious pupils on an equality with the graduates of a completely organized Normal School, we enter a decided protest.

PRACTICAL DEPARTMENT.

THE LEAST COMMON MULTIPLE.

I WISH to find the least number that will contain 4, 8, 12, 18 and 30, without a remainder.

$4=2\times2$ $\quad$ $8=2\times2\times2$

$18=2\times3\times3$ $\quad$ $30=2\times5\times3$

This number can not be less than 30, for if it were it would not contain 30; hence if 30 will contain each of the other numbers, it will be the number required. But 30 ($2\times5\times3$) will not contain 18 ($2\times3\times3$), for there is a factor 3 in 18 which is not in 30; hence I must unite this factor 3 to 30, and the new number ($2\times5\times3\times3$) will contain 18. This last number ($2\times5\times3\times3$) will not contain 8 ($2\times2\times2$), for there are two factors of 2 in 8 which are not contained in it; hence I must unite with the factors 2, 5, 3, 3, two factors of 2, making ($2\times5\times3\times3\times2\times2$). This last number will contain 4, because all the factors of 4 (2×2) are found in it. Therefore the number $2\times5\times3\times3\times2\times2=360$ will contain each of the numbers 4, 8, 12, 18 and 30, and as it contains no factor not necessary for this purpose, it is the least number that will contain them.

A number that will contain another without a remainder is called its *multiple*. A number that will contain several others without a remainder is called their *common multiple*. The *least* number that will contain several others without a remainder is called their *least common multiple*. Hence to find the *least common multiple* of several numbers, separate the numbers into their prime factors, and then unite with either of them all the factors found in the others, but not found in it. The product of these factors will be the *least common multiple*.

NOTE.—In practice, any number may be cancelled which is contained in any other of the numbers. Thus 4, in the above example, may be cancelled because it is contained in 12; for any multiple of 12 must necessarily contain all numbers contained in 12.

Teachers whose school officers do not provide them with a set of geometrical solids, can easily make them out of pasteboard or stiff paper. The cube may be formed by drawing a square on the pasteboard and upon each of its sides other equal squares. When this figure is cut out and the four outer squares folded over, it will form a cube. As thus made one side will be open, but this may be avoided by making one of the squares double, the extra square when folded over, filling the vacant side. The edges of the cube may be stitched together, or small tabs may be left in cutting out, which, when fastened with glue, will serve to hold the sides together. A pyramid may be formed by drawing four equal triangles upon the sides of a square, or of a triangle if a triangular based pyramid is desired. A triangle with rectangles upon its sides will give the triangular prism, a hexagon with similar rectangles a hexagonal prism. A cylinder is made by simply rolling a sheet of paper into a roll and fastening it. A large triangle of pasteboard bent round until its edges meet, will make a cone. A ball will serve for a sphere.

Accountants frequently meet with cases like the following, which can easily be brought into the region of mental arithmetic. Where two numbers are to be multiplied, if they are both in the same *decade*, and the sum of the unit digits is 10, the operation is very easy. Thus:

47 lbs. Coffee, @ 43c ℔ lb., cost $20.21.

OPERATION.—$4\times(4+1)=20.=40\times.50$

$7\times3=\quad.21$

Answer, $20.21

$$\begin{aligned}&40+7\\&40+3\\&\overline{40\times40}\\&+\ 40\times\ 7\\&+\overline{(40\times\ 3)+(7\times3)}\\&=\ 40\times50)+21\\&=\left[\overline{4\times(4+1)}\times100\right]+21\end{aligned}$$

The reason can be seen by separating the 10's from the units, and performing the operation

$$(10a+b)\times(10a+c)$$

as in the margin. So

$42\times48=2016$ | $54\times56=3024$ | $63\times67=4221$ | $85\times85=7225$;

because

$4\times(4+1)=20.$	$5\times(5+1)=30.$	$6\times(6+1)=42.$	$8\times(8+1)=72.$
$2..8=\quad.16$	$4\times6=\quad24$	$3\times7=\quad.21$	$5\times5=\quad.25$
20.16	30.24	42.21	72.25

W. W.

Classes in Geography should always make their first study of the map under the teacher's direction. Nothing can well be worse than assigning a class a lesson and sending them away to study it in their own manner. The time devoted to the recitation should be divided into two parts. The first part will be occupied in reciting, the other must be given to the study of the map. Let us suppose that the class is about to commence the study of Africa. With maps open before them, the class first ascertain the latitude and longitude of the four outermost points. If any mistake occurs it can readily be corrected at once. Next in order we take the boundaries in some given order, the teacher correcting mistakes of pronunciation, etc. Now call attention to the peculiar oval form of the country, its nearly equal length and width, and its division into two differently shaped parts north and south. Capes and Islands would follow next in order. The main point we wish to make here, however, is against leaving the pupil to his own undirected study of the map. By such a process as that indicated above, the teacher is sure that his pupils know everything that will be required of them at the next recitation; he feels that their knowledge is precise and clear, and he is better able to measure the proper extent for a lesson. As the pupils become more acquainted with the plan, they may be left more and more to themselves. It should be the teacher's aim to make them good readers of maps, so that all they will need to extend their geographical knowledge is more detailed maps. The map in fact is the real textbook in Geography, no other is needed. The printed text of our manuals is a positive nuisance, for it tells the pupil what he can readily discover for himself, thus defeating one of the chief ends of teaching—the development of an independent self-activity.

Book Notices.

THE METAMORPHOSES OF OVID. By N. C. BROOKS, LL. D. New York: *A. S. Barnes & Co.* 1868. pp. 386.

Until within a few years, really beautiful editions of the Classics could be procured only by importing them, and even these were not to be compared with the older editions from the presses of ALDUS and ELZEVIR. During the revival of learning these precious remains of ancient literature were thought worthy of preservation in the most beautiful and permanent forms; and the art of the printer and of the binder was taxed to the utmost to provide caskets worthy of such priceless gems. Quite recently American publishers have begun to issue editions of the Classics that may be called really beautiful. The schoolboy may possibly be satisfied with a text which is positively ugly; but the man of culture who has learned to feel a real affection for his HOMER, VIRGIL, HORACE or OVID, will covet an edition as beautiful as the best typography and the best binding can make it. The editions edited by Professor FRIEZE, by Professors CHASE and STEWART, and by Professor BROOKS, are worthy a place in the scholar's library, by reason of accurate text, clear printing, choice illustrations and neat binding. This edition of OVID is particularly noticeable in these respects, and we think it may be pronounced the most beautiful edition of a classic author yet published in this country.

The works of this graceful poet have, no doubt, been undervalued and neglected, but we hope that this publication will awaken an interest in a writer who deserves a place beside VIRGIL and HORACE.

A very neat edition of the THIRTEENTH BOOK, with notes and vocabulary, in flexible binding, edited by C. BILTON, B. A., is published by THOMAS MURBY, Fleet street, London. We wish some American publisher would issue such editions for popular use.

CECIL'S BOOKS OF NATURAL HISTORY. By SELIM H. PEABODY, M. A. Chicago: *Clark & Co.* 1869.

This set consists of three beautifully printed and tastefully bound volumes, put up in a neat box. They are from the pen of a successful teacher and devoted naturalist, employed in the Chicago High School. The style in which these books are written, with the wise selection of matter in them, added to the thirty-three full page illustrations, make them exceedingly attractive, entertaining and instructive.

One book is devoted to Squirrels, Beavers, Rats, and a dozen other similar classes of animals. A second treats in a similar manner of a few interesting traits of Birds. In the third some of the habits and changes of the Insect world are explained to the reader. These books do not aim at

exhaustive scientific discussion, but were written to interest children and lead them to inquiry and search.

There are in our language but few books of Natural History that can with satisfactory results be put in the hands of young readers. These books are just the thing for the boys and girls of our schools. The teacher will find these volumes of much service in giving oral lessons upon animals. The price of the three books is $3.50. A discount of 25 per cent. is made to teachers.

ZELL'S POPULAR ENCYCLOPEDIA AND UNIVERSAL HISTORY has reached its 7th weekly part of 8 well filled and finely illustrated pages. Thus, at the close of the 56th page, we find the definition: History, Use, etc., of Alcohol. By the expenditure of a few cents each week, a fine illustrated Cyclopedia would in a short time be added to the library of the teacher who makes the effort.

THE MOTHER'S JOURNAL for January and February speaks well for Western enterprise. It is a handsome monthly, devoted to the interests of mothers. It is a good family magazine, one that should receive general patronage and be largely read. It is edited by Mrs. MARY G. CLARK, and published by *Clark & Co.*, Chicago, Ill. Price: $2.00 per annum. We will furnish the MOTHER'S JOURNAL and the MICHIGAN TEACHER for one year for $3.00.

The January number of the NORTH AMERICAN REVIEW deserves a place on the table of every teacher who is interested in the higher and better phases of current literature. The articles are as follows: I. Gottfried Wilhelm Leibnitz. II. The Mental Faculties of Brutes. III. The Tariff of the United States. IV. Sir Richard Steele. V. The New Catalogue of Harvard College Library. VI. Railroad Inflation. VII. Karl Otto von Bismarck-Schönhausen. VIII. The Revolution in England. IX. A Look Before and After. X. Critical Notices.

The TEACHER and the REVIEW will be sent for $6.50.

We have received, but too late for notice this month, GRAY'S SCHOOL AND FIELD BOOK OF BOTANY. It is one of the most beautiful books of the season, and teachers who need a new text-book should by all means examine this work. The publishers are IVISON, PHINNEY, BLAKEMAN & CO.

THE ADVERTISER AND TRIBUNE.—The readers of the TEACHER, as well as its editors, are under great obligations to this journal for many items of educational news which we publish each month. We regard the TRIBUNE as one of the very best newspapers in the country, and especially invaluable to Michigan readers.

The attention of book collectors is invited to the AMERICAN BIBLIOPOLIST, published by SABIN & SONS, 84 Nassau street, New York. It is invaluable for its catalogues of choice books, and for its trustworthy judgments in all matters relating to literary property. Price: $1.00 per year.

The NATION for February 18th has a forcible article upon Educational Tests, discussing the recent prohibition of them added by the Senate to the Suffrage Amendment. It shows that the danger from which it seeks to protect the negro is purely imaginary, and that an aristocracy, such as that at the South, always shrinks from such a test, relying more on race, property and creed. Universal suffrage without education will simply open the door to absolutism, and encourage the view that it is simply "a device for the wealthy for the vexation of the poor," and of no advantage in politics. We trust the NATION will secure a large circulation among the readers of the MICHIGAN TEACHER.

Teachers will find a very interesting illustrated article upon the "Lands of the Earthquake," in the March issue of HARPER'S MAGAZINE. It contains a succinct account of the leading outbreaks down to Caracas in 1812. The paper on "Heat" presents a popular statement of the most recent discoveries in that department.

THE NURSERY for February and March contains a series of twelve excellent designs by OSCAR PLETSCH, delineating the various ways in which a little girl may assist her mother. So far as it is worth while to impress such things on children, these pictures will be more effective than a whole library of "goody" stories. Their merit, however, lies not so much in the moral they teach, as in their admirable simplicity and truth to nature. The engraving of a dog on page 89 is also of a high order of merit.

We are under obligations to Prof. FRIEZE for a copy of the revised edition of his VIRGIL'S ÆNEID. Michigan is honored in having a classical scholar of such varied and profound attainments; and this edition of VIRGIL is alike creditable to the patient industry and critical scholarship of Professor FRIEZE.

A SUMMARY OF AMERICAN HISTORY. New York: *A. S. Barnes & Co.*

This little work is similar in character to the "Summary of English and French History" noticed last year. It presents a clear, compact statement of the leading events of American History. As a basis for a course of oral instruction, the true way of teaching History, it will be invaluable in the hands of a good teacher. We heartily commend the little book to the attention of our readers.

Among other papers, *Silliman's Journal of Science and Art* for January contains "Derivative Hypothesis of Life and Species," by Prof. OWEN; On "Some Phenomena of Binocular Vision," by Prof. LE CONTE; and a "Summary of the leading Geographical Discoveries of 1868," by Prof. GILMAN. The subscription to this excellent journal is $6.00 per year.

EDUCATIONAL INTELLIGENCE.

MATTERS AT HOME.

SUPERINTENDENT HOSFORD has appointed the following series of State Teachers' Institutes:

Holly,.....	March 15	Battle Creek,.....	April 5
Ovid,.....	" 22	Three Rivers,.....	" 12
Coldwater,.....	" 29	Lexington,.....	" 19
Dowagiac,.....	April 5	Woodland,.....	" 26

Each Institute will continue in session five days.

DOWAGIAC.—Several errors occur in our report of the Dowagiac Union School in the January number. The following are the correct figures:

Number enrolled, 530. Tardiness, 0. Per cent. of attendance, 90. Visitors, 557.

MUSKEGON.—The new Ward School building is occupied this term, much to the relief of the before overcrowded central building. Miss C. E. MCFARLANE, from the Normal School, and Miss FLORENCE FRITZ, from New Hampshire, have been added to the corps of teachers. The last monthly report shows that 1,319 pupils have been enrolled since September 1st. The present membership is 759. The average for the past month is 682. The per cent. of attendance is 88. The per cent. of tardiness is 0.87 for the present month. A large and convenient case for Philosophical Apparatus has been put up in one of the recitation rooms, in which the apparatus, purchased for the school, is being placed. A library case has likewise been built.

BANGOR.—The Union School has an attendance of about 180. It is graded in three departments, Primary, Intermediate and Grammar School. The Intermediate is taught by Miss GRIFFITH, a pupil of the State Normal School; the Primary by Miss Cover. A new two story building will be ready for occupancy in the summer. The Principal is Mr. E. C. HILL of the Normal School.

CASSOPOLIS.—The new term opens with an attendance of 195. Miss F. BARBER, of Massachusetts, has been engaged as assistant in the higher department; Miss M. BARTHOLOMEW and Miss M. A. ROGERS remain in charge of the Intermediate and Primary. At the close of the public exercises of last term, Prof. F. A. HERRING was presented with a copy of Webster's Unabridged Illustrated Dictionary.

ANTRIM.—Rev. A. T. GREY, teacher of the District School at Antrim City, having in some way given offense to some parties in the district, was notified by the moderator and assessor that his services were no longer required. Going to the school house next morning he found it locked, broke the lock and went on with his school. He was subsequently arrested and tried for "violently and maliciously breaking a lock." One jury disagreed, standing two for conviction to four for acquittal, but a second adjudged him guilty, and he was fined $15 and sentenced to 15 days in jail.—*Exchange.*

BAY CITY.—Mr. D. C. SCOVILLE, of Cazenovia, N. Y., has been engaged as Superintendent of the Public Schools.

ARMADA.—The Union School is under the charge of Prof. E. M. PLUNKETT and two assistants.

ROMEO.—Prof. E. BARTON WOOD reports for the term ending December 24th, 431 as the whole number of pupils enrolled; average number belonging, 334; average daily attendance, 295; percentage of attendance, 88; number of visitors, 135.

UTICA.—The Union School is taught by Prof. F. L. TIFFANY and three assistants. The whole number of pupils enrolled is 198; average attendance, 143; percentage of attendance, 86; number of days lost by absence, 1,379; number of visits from school officers, 0; whole number of visits, 79; number of pupils not absent or tardy during term, 8.

NORTHPORT.—Mr. S. W. STACEY and wife are teaching the Union School.

DETROIT.—We are indebted to Superintendent DUANE DOTY for the following statistics. Valuation of school property, $280,000; school census between 4 and 18 years, 22,810; number of names enrolled, 9,664; average number of pupils belonging, 6,480; average daily attendance, 6,237. The teachers employed are:

2	Men at	$1,500	Total,		$3.000
2	" at	1,400	"		2,800
2	" at	1,200	"		2,400
1	Man at	1,000	"		1,000
2	Men at	900	"		1,800
1	Man at	400	"		400
1	Woman at	800	"		1,600
2	Women at	600	"		1,200
6	" at	500	"		3,000
2	" at	475	"		950
5	" at	450	"		2,250
17	" at	425	"		7,225
1	Woman at	410	"		410
37	Women at	400	"		14,800
9	" at	375	"		3,375
26	" at	300	"		7,800
116					$58,210

MATTERS ABROAD.

AMERICAN.

MINNESOTA.—The Superintendent's Report for the year ending September 30th, 1868, gives the whole number of districts in the State as 2,353; number of children between 5 and 21 years of age, 129,103; whole number of persons attending school, 81,696; whole number of male teachers, 563; of female teachers, 2,313; average wages of male teachers per month, $36.23; of female teachers, $32.16; number of school-houses, 1,766; whole amount expended for school purposes, $805,369.05.

WISCONSIN.—The Legislature, now in session, considered two bills last week, relative to public schools. One of these bills provides that the constitutions of the United States and of the State shall be taught to scholars of both sexes in all the public schools of the State; and this bill is likely to become a law. The other bill provides that all children between the ages of eight and fourteen years must attend the public schools, under certain penalties to be imposed upon any parent or guardian of a child who shall neglect to send the child to school for a certain period each year. Whether this bill will become a law is more doubtful.—*Exchange.*

Superintendent CRAIG reports the whole number of children attending school, public or private, during 1868, at 268,670, leaving 50,000 who have not attended. The number of teachers employed was 8,566. The average wages of male teachers was $42.97; of female teachers, $27.17.

ILLINOIS.—The State Teachers' Association held its fifteenth annual meeting at Peoria, commencing December 29th, 1868. The subjects considered, either by paper or discussion, were Compulsory attendance, Culture, Co Education of the Sexes, Proper Method of Teaching Languages, True Relation of the High School to the School System of the State, Idea of a Graded School, County Normal Schools. The next President is GEORGE HOWLAND, of Chicago.

Governor OGLESBY states in his annual message, that the whole number of schools in the State, September 30th, 1868, was 10,705; number of school houses, 10,381; number of male teachers, 8,240; of female teachers, 10,797; number of children of school age, 826,820; number attending, 706,780; expenditures for school purposes, $6,430,881.

INDIANA.—The State Teachers' Association met at Richmond, commencing December 29th, 1868. The chief topics discussed were Compensation of Teachers, Course of Study for High Schools, Amendments to School Law, Composition Writing, Teaching Civil Government, Duty of the State to educate all her children, Teaching Natural Science in Common Schools, Music in Common Schools, Relation of Colleges to Public Schools. The next President is Prof. JOSEPH SINGLEY.

MAINE.—Hon. WARREN JOHNSON reports the number of scholars in 1868 at 225,200 against 241,883 in 1858, a decrease of 16,683 in ten years.

The Michigan Teacher.

Vol. IV.—YPSILANTI, APRIL, 1869.—No. 4.

Historical Sketch of Kalamazoo College.

WHATEVER other distinction Kalamazoo College may or may not have, to it must be accorded the honor of being the *Pioneer* Christian College of Michigan! In the summer of 1829, a recent graduate from a New England College and Theological Seminary, came an emigrant from Maine, inspired with the noble desire of bearing some humble part in the intellectual and moral advancement of the people of the Territory of Michigan.

For this purpose, Rev. Thomas W. Merrill, still resident in this State, "alighted from his Canadian racker," and commenced a classical school in the village of Ann Arbor on the 23d day of November of the same year.

In this school, the only one of the kind in the Territory, and which, enjoying a liberal patronage, proved a gratifying success, we find the germinal efforts and influences which, developed through nearly two score of years, have ultimately fruited in Kalamazoo College.

From this school, the next season, Mr. Merrill issued and traversed the Territory for signers to a petition, of which he was the author, asking the Legislature to charter an institution under

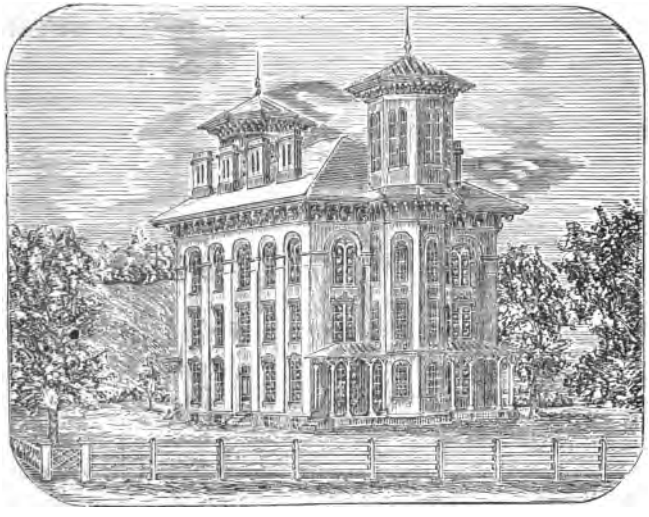
Entered according to Act of Congress in the year 1867, by Payne, Whitney & Goodison, in the Clerk's Office of the District Court of the United States, for the Eastern District of Michigan

the name of the Michigan and Huron Institute, securing its control to the Baptist denomination, by prescribing that three-fifths of its trustees should be of that faith. The petition, meeting with objections on account of its denominational features, was lost by being laid over until the next session. Meanwhile, under the influence of the opposition, an Academy was incorporated and started at Ann Arbor, of which Mr. MERRILL, though urgently solicited, declined to take charge.

The eastern shore of the Peninsula thus proving uncongenial to his cherished enterprise, it was resolved to transfer it to the western; and as Kalamazoo was then a forest through which rose the smoke of but a single log cabin, Mr. MERRILL naturally sought the older settlement of Prairie Ronde, where he aided the first settlers in building a house for schools and meetings, which was occupied for that purpose as early as the winter of 1830–31.

As it was at first designed to incorporate the manual labor system, how to purchase the necessary lands, where to fix its permanent location, and how to re-appear before the Legislature, so as to secure an incorporation, formed a complicated problem of no *easy* solution. Fortunately, however, at this critical juncture, the hero of the enterprise found a valuable ally in the person of CALEB ELDRED, whose practical wisdom and generous liberality at this time was invaluable.

In the autumn of 1831 an appeal was agreed upon, by these pioneers, to the benevolent Baptists of the east, for the purpose of raising money to purchase lands for the institution, and accordingly Mr. MERRILL, endorsed by the Michigan Baptist Association in September, appeared a month later before the Baptist convention of the State of New York, where he received a hearty commendation of his object. The result of this agency was the nucleus of all pecuniary gifts which have or may yet be made to Kalamazoo College. So far as appears, the first paid subscriptions to this object were *seven ten dollar* ones from the ever cherished names of JONATHAN GOING, NATHAN CASWELL, JAMES WILSON, JOHN H. HARRIS, BYRON & GREEN, WILLIAM COLGATE and E. WITHINGTON. With this money was purchased the first property bought for the Institute in Bronson (now Kalamazoo).



The next year the petition to the Legislature for the incorporation of the Institution, under the name of the Michigan and Huron Institute, was renewed by Mr. MERRILL, Judge ELDRED, and others, but, wiser from previous experience, now without any provision for denominational control, humbly suggesting, however, the names of the petitioners and early ministers, and active laymen of their denomination, as trustees. The bill introduced in answer to the petition found not the smoothest of sailing, but under the ever watchful eyes of the petitioners, and the steady hand of Judge MANNING, successfully shunned the breakers of objections, and without harm made the voyage of the Legislatorial sea, but stranded at last on some gubernatorial scruples, over which bar it was helped by a committee, consisting of JOHN BOOTH, F. P. BROWNING and T. W. MERRILL, and was finally approved April 22d, 1833.

At the organization of the Board of Trustees, CALEB ELDRED was chosen its first president, who for a quarter of a century most worthily filled the office, and who was at last relieved of it only after his repeated and earnest solicitations, necessitated by the infirmity of age.

As the charter did not locate the Institution, it was not until after many meetings and long, toilsome journeys over primitive roads, that its location was determined in Kalamazoo by a sub-

scription of $2,500, raised by the citizens for that purpose, and which purchased 115 acres of land in the southern part of the village, but which was afterwards mainly used to secure an interest in the present beautiful and eligible site and commodious edifice of the Kalamazoo Theological Seminary, overlooking the village from the west.

The privileges of the Institute, save for a short time, during which compensation was made in a temporary school for young ladies, under the care of Mrs. L. H. STONE, were alike free to both sexes.

In 1855 the adjoining site for the Female Department was secured by the generous and timely gift of $1,500 by Mrs. H. E. THOMPSON, of New York. During the immediately succeeding four years, some $10,000 (of which CALEB VAN HUSAN, of Detroit, gave $1,000, and the rest was raised principally in Kalamazoo) were secured for the erection of Kalamazoo Hall, and furnishing it for the Female Department, which was formally dedicated and entered in the autumn of 1859, and which constituted the solemnization of the nuptial vows of the two long betrothed departments.

The first score of years, following the securing of the charter, witnessed but little advance, and is remembered mainly for the good work done, and the entire absence of debt. The inferior condition of the public schools and absence of all High School facilities favored a remunerative patronage of the Institute, although its course of study was chiefly preparatory. The current expenses were correspondingly light, and a part of the time were fully met by the tuition. For a while the State University supported the Institute as one of its branches. The Michigan Baptist convention afterwards sustained it as the literary helpmate for its theological education, although the property of the Institute always remained distinct, and its Board of Trustees allowed no intermission of their meetings and controlling care.

No effort for endowment having been made, the Institute, though just entering its majority, was but a *child!* The last decade of its existence has been emphatically the period of its enlargement.

In 1853 an effort was made to raise $30,000 of endowment

fund on the scholarship system, and after two years of laborious effort by T. Z. R. JONES, S. CORNELIUS and S. W. PATTISON, $20,000 was obtained chiefly in scholarship notes, more than one-half of which failed, from a variety of causes, to make their scholarships good, but out of them came the beginning of the college endowment.

Two years later the charter was amended so as to confer full college powers, and the name changed to Kalamazoo College, and the corps of instructors enlarged so as to meet the demands of the College course, which was to be of as high grade as that of the University.

The income of the College being inadequate to the defraying of the current expenses, there occurred an annual deficit, which, true to the inevitable law of indebtedness, waxed greater and greater, until in 1864, the College trembled upon the very verge of insolvency. In this crisis, however, a general and simultaneous effort was made for the liquidation of its indebtedness, and in the almost incredible short space of ten weeks, so far as we know, unprecedented in College history, the entire amount of $30,000 was raised, removing the debt and leaving some $3,000 for coming expenses.

Worthy to be placed in parallel column with this effort for college emancipation, is the recent effort for enlargement, by which, in ninety days, $50,000 have been added to the endowment fund, all so fresh in memory as to need but a mention here. Other smaller sums, from time to time, in various ways, have been added, aggregating something over $10,000. The financial prospect of Kalamazoo College, untrammelled by debt, with an interest bearing fund of $75,000, and in the revived hope and strengthened faith and increased interest of its supporters, finds no parallel in all the past forty years of its history. Like the dawn, its future is bright and brightening.

Michigan's *pioneer* college, more wise and hardy, from an experience of nearly four decades of years, with a full share of the struggles and trials incident to early college history, is, we trust, passing into the mature manhood of its usefulness—a manhood of strength and vigor which shall be neither weakened nor abated by age.

If we turn our eye now to the list of instructors, we shall find a long line of worthy names, beginning with the forerunner—the John the Baptist—THOMAS W. MERRILL, and ending with Dr. KENDALL BROOKS, the present but recent occupant of the presidential chair. Between these we find the names of MARSH, CLARK, BALCH, ALDEN and DULTON, OSBORN, STONE, EATON, GRAVES, PUTNAM, OLNEY, PAGE, HOLDEN, ANDERSON, CURTIS, J. A. CLARK and WAYLAND.

In the Female Department Mrs. STONE and OSBORNE, and Misses FLETCHER, FINNEY, SHAW, KING and DODGE.

Of those who have been educated at this seat of learning, we cannot accurately speak; were it possible we would gladly pass them—an army of no mean magnitude—before our readers, that they might see for themselves in this citizen soldiery, trained for efficient service iu any and all the arts and trades, vocations, professions and callings of honorable pursuit, upwards of half a hundred, honored by and honoring the "insignia of the highest office of the Christian church." From Massachusetts Bay to far off California is the voice of these heralds of the gospel heard upon every Sabbath; while like faithful watchman, treading their sentry beat, the gospel signal is not lost through all the vastness of the intervening distance.

In those ranks are presidents of Young Men's Christian Associations, earnest laborers in the Sabbath School, christian workers of every class; Superintendents of both State and county public instruction, one professor in our State University, one lieutenant governor and honorable men (members of our own State Legislature and of the Legislatures of other States) not a few, besides a host of doctors and lawyers, fast rising into eminence, at least in the *succession* (non-apostolic) of *Honorables.* Besides all these there were hosts of worthy ones who gave themselves a willing offering upon their country's altar during the recent days of her trial. It is not perhaps too much to say, that none of the professions are left without representatives of Kalamazoo College, and in which these are not fast rising to positions of honor by virtue of the direction and benefit received while students therein.

Notwithstanding the breaking up of college classes by the

want of a permanent president since the resignation of Dr. GREGORY, under the regimen of Dr. BROOKS and Miss DODGE, and their efficient co-laborers, the Institution is rapidly taking an honored position, and now, not only in a financial respect but in all other respects, the College has a vastly more encouraging future prospect than ever before.

Upwards of a hundred promising students are daily receiving instruction, with frequent additions. All the college classes are filled with one exception, and a fine graduating class for the June commencement. Added to these, the great want of the College, an efficient financial agent, it is expected will soon be met by one who shall enter the field and elevate himself entirely to the educational work; *with these*, and a full and able College Faculty, and the enlarged endowment, it is surely not unreasonable to expect the most gratifying results.

Kalamazoo College by no means purposes to be a rival of sister colleges or other institutions, but continues in the field of Christian education as a co-laborer, extending the olive branch of peace to all joining, with whom she says, "Let us go up and possess the land, for we are able."

L. H. TROWBRIDGE.

ELOCUTION AND GESTURE.

BY E. A. WHITWAM.

I DO not intend to give an exhaustive essay on this topic, but simply a few leading thoughts designed to draw the attention of other teachers to the matter, and perhaps bring it to your columns, to be discussed. It is a subject that is sadly neglected in some schools. I meet often with teachers that are opposed to the practice of these twin arts.

I will now proceed to answer, as best I may in so limited an article, some of the arguments that I have heard brought against them. Says one, "The idea of practicing gestures is absurd; it makes the speaker artificial. He would be thinking all the time of the gesture that he wished to make, and his speech would suffer in consequence. The gesture should be natural, and such

as the thought required." I agree perfectly with the last assertion, but the others have not the shadow of truth to sustain them. What is it to be natural in gesture? According to the definition given by the opposition, the most natural motions made by a human being are those made by a babe in its cradle, and those are but meaningless kickings and pawings at space. They must accept this, or my definition. I believe that, except so far as the elementary movements are concerned, there is nothing in this department but what is acquired; and as soon as acquired it becomes a part of the individual, and is just as natural as though he possessed it at birth. A human being was made to walk, but if he was never allowed the privilege his legs would fail to do their duty in an emergency.

In speaking, a man's gestures partake of his every-day employment. I have known blacksmiths who were ministers. In the pulpit their gestures were performed *a la sledge hammer.*

Now what is the object of the practice of gesture? It is to accustom one to easy, graceful gestures, and no man can expect to make a graceful speaker if the practice of it be neglected.

A person would *not* be thinking of the gesture that he was to make. If the subject demanded a gesture he would make one of some kind, and it would depend on his knowledge of graceful gestures whether he made an appropriate one, or made himself a laughing stock by his awkwardness.

But there is something more than mere motions to make. The voice is to be trained. And here is met the greatest opposition. We must have something to work with, and what better than declamations?

There is a class who denounce the whole system of voice training, or "squeaking," as they call it. They think that a man's voice will naturally take the right key in expressing the various emotions. Why will not the voice do the same in singing? Ah, my friend, if you never practiced the scale you would make an indifferent singer, and if you never raised your voice above a whisper you would find in time that you *could* not if you tried.

Well, how is the voice to be trained? says A., no person should speak another's thoughts. Let us see where this would

lead us. No person is able to write a speech of his own before he is fourteen or sixteen years of age. Should we throw out declamations, there is nothing to put in the place for the purpose of developing the youthful voice at its best stage for development. There is but one way in which the object desired can be attained, and that is by properly conducted exercises in declamation.

Should this bring out a discussion, as I hope it may, I shall be glad to enlarge more upon the theme. In this paper I have simply given a few leading facts, more for the purpose of bringing others into the field than making a full argument.

ORIGIN AND PROGRESS OF THE MICHIGAN SCHOOL SYSTEM.

Paper read before the Association of County Superintendents, at Marshall, July 9, 1868. by Hon. John D. Pierce, of Ypsilanti.

IT is sometimes useful to review the past, to see what has been done. It is so in every department of life. We can not understand the present, unless we know something of the past. Such knowledge is exceedingly important in devising measures, either for the present or the future.

This Peninsula was first visited in 1610, three years after the settlement was made on James river, Virginia, and twelve years before the landing of the Pilgrims on Plymouth Rock. The first settlement was made in 1632, at Detroit. It was occupied by the French, and then by the English, as a trading post, till the close of the war, which gave independence to the United States. The Indians, the beaver, the buffalo, the wolf, the elk and the bear, were joint occupants with the French and English. The latter were intruders, but they finally succeeded in driving out the original inhabitants and settling the country. From the close of the war of Independence, Michigan formed a part of the great Northwest Territory, up to 1800. Chillicothe was then the seat of government for the whole. At this time Indiana was erected into a separate Territory, and in 1802, Ohio becoming a State of

the Union, Michigan was then annexed to Indiana. In 1805 the Territory of Michigan was established, and General HULL appointed Governor; this office he surrendered when he gave up Detroit, and all else to the British, in the war of 1812. General CASS was appointed its Governor in 1813, and retained the office up to 1831. To him, more than to any other man, is the State indebted for its subsequent rapid settlement. The delusion which had all along prevailed in regard to the character of the country, was, under his wise and efficient administration, dispelled. He procured a survey of the Peninsula, and the laying out of the Chicago and Territorial roads. These measures brought the country into notice, and opened it to public inspection. It was then found that the representations which had hitherto been given of it—that the country was an interminable swamp, crossed with sand ridges—was a mere fancy sketch, and utterly baseless. But so firmly fixed was this delusion in the public mind of that day, that the commissioners sent out to locate bounty lands for soldiers, after visiting Detroit and going a few miles west of it, returned, and reported it totally unfit for cultivation. Nothing could have been more fortunate for the future State. Besides retarding the settlement, we should have had a very different set of inhabitants, had it been incumbered with soldiers' bounty lands.

The name of our State is derived from the Chippewa languge. It is formed of two words—Mitchaw and Sageigan—the meaning of the first is great, of the second, lakes; and hence Michigan means the land of the great lakes. Nothing could have been more expressive of its real character—land of great and mighty lakes.

When I came into Michigan, in 1831, the census of the Territory had just been taken, including what is now the State of Wisconsin. It numbered 32,000 inhabitants. This was the sum total of both Territories, where there are now, in all probability, about two millions of people. There was then 2,000 in Wisconsin, and 30,000 in Michigan proper.

Previous to this period, little had been done in this Territory for schools. The Legislative Council had passed an act providing for the election of six school commissioners in each as organized

township, for the purpose of dividing their respective townships into districts; but no provision was made for the support of schools, except by rate bill. The districts could procure sites and build school houses, under certain limitations and restrictions, and the director of the district might hire a teacher and collect the rate bills. The schools, however, were little else than private schools. But many of the newer townships up to 1835 had not organized even under this system.

In 1834 the census was again taken, and Michigan was found to contain 87,000 inhabitants. Soon after this time the Legislative Council authorized the calling of a convention to form a State constitution; and fixed upon May, 1835, as the time for it to assemble, at Detroit, for that purpose.

It was at this period in our history that the Michigan school system had its inception and origin. Gen. ISAAC E. CRARY, a graduate of an Eastern College, and a warm friend of education, was for a year or two an inmate of my house. The condition and prospects of our new State were often the subjects of discussion, and especially of schools of various grades, from the highest to the lowest. About this time, COUSIN'S report on the Prussian system, made to the French minister of Public Instruction, came into my hands, and it was read with much interest. Sitting one pleasant afternoon upon a log, on the hill north of where the Court House at Marshall now stands, Gen. CRARY and myself discussed, for a long time, the fundamental principles which were deemed important for the convention to adopt, in laying the foundations of a new State. The subject of education was a theme of special interest. It was agreed, if possible, that it should make a distinct branch of the government, and that the Constitution ought to provide for an officer who should have this whole matter in charge, and thus keep its importance perpetually before the public mind.

That gentleman went to the convention, and was appointed chairman of the Committee on Education; drew up an article on that subject; reported the same to the convention; it was adopted and became the law of the land. It provided what no other in the United States had done, for the appointment of a Superintendent of Public Instruction. This was to be done on

nomination of the Governor, and joint vote of the two houses of the Legislature.

At the election, held October, 1835, the constitution was ratified. STEVENS T. MASON was elected Governor, and Mr. CRARY representative to Congress. Members of the Legislature were also chosen at the same time. A session of it was held in November and adjourned over to January. At its session in January, the State not yet being admitted into the Union, the Legislature again adjourned to July following.

Up to this period, though I had counseled oftentimes with Mr. CRARY as to what ought to be done to promote the best interests of our new State, yet I had no thought of ever occupying the position for which the Constitution had made provision; being constantly employed in my work as a missionary of the American Home Missionary Society. On his way to Washington, Gen. CRARY held a consultation with Gov. MASON, and proposed my name in connection with that newly created office. The Governor expressed a wish to see me on the subject, as we were then wholly unacquainted. Accordingly I visited Detroit about the twentieth of July, and had an interview with the Governor. After discussing the matter with him to some extent, the result was that on the 26th of that month, 1836, I was nominated and unanimously confirmed as Superintendent of Public Instruction for the State. I was therefore the first that ever held the office in this country, under a State constitution. At the same time an act was passed, requiring the Superintendent to prepare and submit to the Legislature, to be convened on the first Monday of January, 1837, a plan for the organization and support of primary schools, a plan for a University with branches, also a plan for the disposition of the university and primary school lands. This, then, was the first work assigned me to do; and I had five months before me in which to do it. One thing was favorable; it was a day when all was astir with activity and life—the watch-word was progress and improvement. The field was clear. There were no old institutions and deep-rooted prejudices to be encountered and removed. But the condition of the State was to be taken into the account. We were less than hundred thousand, all was wild, and the people were comparatively poor; all

was to be created anew. We had no canals, no railroads, even the old, slow stage coach was scarcely to be found. We had the lumber wagon and the Indian trail. We forded rivers and waded marshes, and when night came, if we found a shanty with a piece of old carpet for a door, we turned in for the night, and all were satisfied. But notwithstanding all this, the people then here, having come mostly from the region of school houses, were anxious for schools. And I may add, that the early movement in this direction aided materially in the settlement of the country.

Soon after I received my commission, I went East and visited such men as JOHN A. DIX, Gov. MARCY, President HUMPHREY, Gov. EVERETT, President DAY, and others of like character. I was cordially received. What Michigan had already done was a matter of great surprise, and much solicitude was expressed for our success. I attended also the American Institute of Instruction, held at Worcester, Mass., and the College of professional teachers, held at Cincinnati. My object in this journey was information in regard to schools, from the primary school to the university; their organization, management and support. The whole subject had been committed to my hands. Besides, I had over a million acres of university and school lands to look after. Such then was the responsibility, and such the interests involved; interests, not only of the then present, but of the future. A failure, or even a bad beginning, must necessarily affect the State in its educational interests for a long time. A distinguished gentleman of Ohio, an earnest friend of schools, remarked to a convention of teachers, at Cleveland, that their State was fifty years behind Michigan, for the want of such a beginning as we have had.

After a two months' sojurn, I returned and drew up my report. In it the great questions involved were discussed, and the three specified plans required by the Legislature were drawn out somewhat in detail. At the appointed time it was presented, and after a full and free interchange of views, and some modifications, it was adopted, as a whole, with scarcely a dissenting voice. Such, then, was the beginning.

(To be continued.)

NEW THEORY OF REPETENDS.

(CONCLUDED.)

(See Note on page 41, February number of the TEACHER.)

THE reason why the amounts in the *columns* are equal to q multiplied by the r's in reversed order (as in *column* of $\frac{1}{17}$, on page 42, February number of the TEACHER), may be understood by inspection of the following

TABLES.

No. 1.	No. 2.	No. 3.	No. 4.	No. 5.	No. 6.	No. 7.	No. 8.	No. 9.	Column.	No. 10.	No. 11.
$\frac{1}{7}=$	$.1\frac{3}{7}$		$\frac{1}{7}=$	$.1$	$\frac{3}{7}$					$\frac{8}{19}=.421\frac{1}{19}$	1
$\frac{3}{7}=$	$.4\frac{2}{7}$		$\frac{5}{7}=$	$.7$	$\frac{1}{7}$	1	$7+$	$\frac{1}{7}$	7	$3\frac{7}{19}=3.368\frac{8}{19}$	$8=s'''$
$\frac{2}{7}=$	$.2\frac{8}{7}$	$\frac{25}{7}=3\frac{4}{7}=$		3.5	$\frac{4}{7}$	5	$35+$	$\frac{5}{7}$	35	$2\frac{18}{19}=2.947\frac{7}{19}$	$7=s_6$
$\frac{6}{7}=$	$.8\frac{4}{7}$	$\frac{20}{7}=2\frac{6}{7}=$		2.8	$\frac{4}{7}$	4	$28+$	$\frac{4}{7}$	28	$7\frac{1}{19}=7.578\frac{18}{19}$	$18=s_9$
$\frac{4}{7}=$	$.5\frac{1}{7}$	$\frac{30}{7}=4\frac{2}{7}=$		4.2	$\frac{6}{7}$	6	$42+$	$\frac{6}{7}$	42	$4\frac{3}{19}=4.631\frac{11}{19}$	$11=s_{12}$
$\frac{5}{7}=$	$.7\frac{1}{7}$	$\frac{10}{7}=1\frac{3}{7}=$		1.4	$\frac{2}{7}$	2	$14+$	$\frac{2}{7}$	14	$5\frac{1}{19}=5.052\frac{2}{19}$	$12=s_{15}$
$\frac{1}{7}=$	$.1\frac{3}{7}$	$\frac{15}{7}=2\frac{1}{7}=$		2.1	$\frac{3}{7}$	3	$21+$	$\frac{3}{7}$	21	$\frac{8}{19}=.421\frac{1}{19}$	$1=s_{18}$
			$\frac{5}{7}=$	$.7$	$\frac{1}{7}$						

In tables 1 and 2, R of $\frac{1}{7}$ is formed by division, written in an unusual form. The 10^{ths} in No. 2 show the repetend. These 10^{ths} are successively 10^{ths} of 1, 10^{ths} of .1, 10^{ths} of .01, 10^{ths} of .001, &c., and the fractions attached, are, successively, fractions of .1, .01, .001, &c. The numerators in No. 2 are the r's in natural order. Therefore those in No. 1 (commencing with 3, the first r, as seen in No. 2) are the r's in natural order; for each numerator in No. 1 (commencing with 3) is transferred from the line above in No. 2. Tables 5 and 6 are formed thus: Commence with $.7\frac{1}{7}=\frac{5}{7}=\frac{s}{d}$; 5 times $.7\frac{1}{7}$ are $3.5\frac{5}{7}$; 5 times $.5\frac{5}{7}$ are $2.8\frac{4}{7}$; 5 times $.8\frac{4}{7}$ are $4.2\frac{6}{7}$; and so on. This method of forming No. 5 is identical with the operation which forms the *column*, (as shown below), and the amounts in No. 5 are respectively $\frac{1}{10}$ of the amounts in the *column*, because No. 5 commences with .7, and the *column* with 7.

In No. 4, we perform the same operation on $\frac{5}{7}$, thus: 5 times $\frac{5}{7}$ are $3\frac{4}{7}$; 5 times $\frac{4}{7}$ are $2\frac{6}{7}$; 5 times $\frac{6}{7}$ are $4\frac{2}{7}$; and so on. Since $\frac{5}{7}=.7\frac{1}{7}$, the amounts in No. 4 are respectively equal to those in Nos. 5 and 6, where the fractions are represented by 10^{ths} and parts of 10^{ths}.

The identity of the operations which form the *column* and table No. 5, is evident, because the digits multiplied and the digits "to carry" are the same, respectively, in both methods. For instance: observe the formation of 4.2 in No. 5. The operation in both methods is thus: 5 times 8 are 40, and 2 "to carry" are 42. In the formation by the *column* method, the 2 "to carry" comes from $2\frac{6}{7}$, which is 5 times $\frac{4}{7}$ in No. 4; and in the formation of Nos. 5 and 6, the 2 "to carry" comes from 5 times $\frac{4}{7}$ in No. 6, which $\frac{4}{7}$ is *transferred* from No. 4. Hence the identity of the two operations which form the *column* and No. 5.

This *transfer feature* pervades tables 4 and 6; it leads to a solution of the problem, and it occurs because the multiplier is s, thus: $\frac{5}{7}$ in No. 4 is $\frac{s}{d}$, which reduces to the decimal $.q\frac{1}{d}$, and $\frac{5}{7}$ in No. 6 is s times $\frac{1}{d}$, making the product $\frac{s}{d}$; thus comes the first *transfer;* then $\frac{4}{7}$, both in No. 4 and No. 6, comes from 5 times $\frac{5}{7}$; and thus each fraction in No. 4 is *transferred* to the line below in No. 6, and therefore each fraction in No. 6 is equal to the 10^{ths} and parts of 10^{ths} in the line above.*

Table *A.*	Table *B.*
$\frac{1}{7}=$	$.1\frac{3}{7}$
$\frac{3}{7}=$	$.4\frac{2}{7}$
$\frac{2}{7}=$	$.2\frac{6}{7}$
$\frac{6}{7}=$	$.8\frac{4}{7}$
$\frac{4}{7}=$	$.5\frac{5}{7}$
$\frac{5}{7}=$	$.7\frac{1}{7}$

Thus, in No. 4, $2\frac{1}{7}=2.1\frac{3}{7}\therefore\frac{1}{7}=.1\frac{3}{7}$; and this $\frac{1}{7}$ in No. 4 is *transferred* to the line below in No. 6, and equals $.1\frac{3}{7}$ *then* next above. If we trace this equality through, we form two tables (*A* and *B*), identical with tables 1 and 2. Table *A* contains in reversed order the fractions in No. 6 (the same as those in No. 4); therefore table 1 contains, in reversed order, the fractions in No. 4, and *vice versa*, the fractions in No. 4 form table 1, reversed. But it has been shown that the numerators in No. 1, commencing with 3,

* Each of *these* terms of 10^{ths} and parts of 10^{ths} (*commencing with* $.q\frac{1}{d}$), IS FOLLOWED by its equal fraction. But in No. 2, each of the series of terms *ending with* $.q\frac{1}{d}$ IS PRECEDED by its equal fraction. Hence reversed sequences obtain.

are the r's in natural order. Therefore the numerators in No. 4, ending with 3, are the r's in reversed order, as separately shown in table 7, and the fractions may each be considered as $\frac{r}{d}$.

We have now found the key to the problem; for the amounts in table 3 are each $\frac{r}{d}\times s=\frac{s}{d}\times r$. Therefore the amounts in table 4, and also those in Nos. 5 and 6, are $\frac{s}{d}$, $\frac{s}{d}\times r$, $\frac{s}{d}\times r$, &c. Since $s=\frac{qd+1}{10}$, these amounts are $\frac{q}{10}+\frac{1}{10d}$, $\frac{qr}{10}+\frac{r}{10d}$, $\frac{qr}{10}+\frac{r}{10d}$, &c., the terms $\frac{q}{10}$, $\frac{qr}{10}$, $\frac{qr}{10}$, &c., composing table No. 5, (where the numerators signify q multiplied by the r's in reversed order), and the terms $\frac{1}{10d}$, $\frac{r}{10d}$, $\frac{r}{10d}$, &c., composing table No. 6.

[Table No. 6 is evidently so composed; for the numerators are the r's in reversed order, being *transferred* from No. 4; and the common denominator is $10d$, because $.q\,\frac{1}{d}$ means $(q+\frac{1}{d})\div 10$. (Thus, $.7\frac{1}{7}$ means $.7+\frac{1}{70}$.) Consequently the other terms compose No. 5, as above stated.]

Ten times the amounts in table No. 5 are therefore q, qr, qr, &c.* But it has been shown that the amounts in the *column* are, respectively, ten times the amounts in table No. 5. Therefore the amounts in the *column* are q, qr, qr, &c., i. e., they are equal to q multiplied by the r's in reversed order, *which is the property claimed.*

Since $\frac{s}{d}=.q\frac{1}{d}$, having 1 decimal place, and

" $\frac{s''}{d}=.q''q\frac{1}{d}$, " 2 " places, and

" $\frac{s'''}{d}=.q'''q''q\frac{1}{d}$," 3 " " &c., we see that $\frac{s_n}{d}$ reduces to a decimal having n places, before we reach the remainder, 1.

We will call this decimal Q. Now, if we use for the multiplier in the above cases, respectively, s, s'', s''', s_n, it is evident we shall produce tables 4 and 6, in which the *transfer feature* will obtain, (since $\frac{1}{d}\times n=\frac{n}{d}$) and therefore, likewise, the *column* feature, in

* Tables 8 and 9 show tables 5 and 6 multiplied by 10.

which the terms will be Q, Qr, Qr, &c., an example being shown in table 10, where we find R of $\frac{1}{19}$

(viz.: .052
631
578, &c.),

by tracing the ratio s''' or 8. Each of the amounts in table 10 is divisible without remainder by $\frac{s'''}{d}$, or $\frac{8}{19}$, or $.421\frac{1}{19}$, (as tables 5 and 6 by .7$\frac{1}{7}$, and the *column* by 7), and the quotients are a series of r's, consisting of the last r (1), and every 3^{d} r therefrom.* We observe here a general law, viz.: If Q has n digits, the ratio is s_n, and the series of quotients consists of 1, and every n^{th} r therefrom. (See table No. 11.) WM. WILEY.

* Evidently the most convenient method, *if we wish* Q *to have more than one digit,* is to use s, till we form as many digits as we wish; thus, in $\frac{1}{17}$, we form *column* 1 by the use of s, till we obtain four digits in Q, thus: .7647. We then commence *column* 2 with .7647, and use s_4, which we see is $\frac{9}{17}=13$, and we find R to be

.0588
2352
9411
7647, as before.

Column 1.	Remainders.	Column 2.	Remainders
7	1	.7647	1
84	$12=s$	9.9411	$13=s_4$
56	$8=s'$	12.2352	$16=s_8$
77	$11=s'''$	3.0588	$4=s_{12}$
91	$13=s_4$	.7647	$1=s_{16}$

This method is not recommended as affording any facility, but only further to illustrate a theory which the author regards merely as an arithmetical curiosity.

NOTE.—The above tables furnish an independent proof that the *column* shows R backwards; for the 10^{ths} in No. 5 form in reversed order the 10^{ths} in table B (the same as No. 2). But the 10^{ths} in No. 2 form R in natural order. Therefore the 10^{ths} in No. 5 (which correspond to the unit digits in the *column*) form R backwards. *Therefore the* COLUMN *shows* R *backwards.*

It will be seen that the above matter explains the formation only of R of $\frac{1}{d}$. But as the theorem includes all repetends, it is proper to remark that R of $\frac{r}{d}$ is formed from R of $\frac{1}{d}$, without the entire multiplication of R of $\frac{1}{d}$ by r.

R of $\frac{r}{d}$ may be *indicated* by multiplying a few of the first, or a few of the last digits of R of $\frac{1}{d}$. Thus: to procure R of $\frac{3}{19}$ (see page 41 of February

number), multiplying the first four digits of R of $\frac{1}{9}$ by 2, we procure 0338; or, multiplying the last four digits by 2, we procure 9322, which digits are followed in R of $\frac{1}{9}$ by 0338. Both these processes indicate that R of $\frac{2}{9}$ commences with 0338, and therefore R of $\frac{2}{9}$ is

$$.033898305084745762711864406779661016949152542372881355932\dot{2}$$

In forming R of $\frac{1}{d}$ by division, when $r=d-1$, we have obtained the first half of R; thus, in R of $\frac{1}{7}$,

$$\frac{1}{7}=.142\tfrac{8}{7}\text{; then, since}$$
$$\frac{7}{7}=.999\tfrac{7}{7}$$
$$\therefore \tfrac{6}{7}=.857\tfrac{1}{7}=.999\tfrac{7}{7}-.142\tfrac{8}{7}.$$

This well known property is alluded to in the last sentence on page 41 (February number), and is illustrated in R of $\frac{1}{9}$, and R of $\frac{1}{7}$.

There is also, among others, the following well known property in repetends which have $d-1$ for one of the r's.

If we separate the r's into two parts, in natural order, as thus, in R of $\frac{1}{7}$,

3, 2, 6
4, 5, 1
7, 7, 7

the sum of each couple is d. The reason of this property may be seen by inspection of tables 1 and 2.

Thus: since $\frac{1}{7}=.9\tfrac{7}{7}$ and $\frac{1}{7}=.1\tfrac{3}{7}$, $\therefore \frac{6}{7}=.8\tfrac{4}{7}$. Therefore $\frac{6}{7}$ in table 2 is followed by $\frac{7}{7}-\frac{3}{7}=\frac{4}{7}$.

Again, since $\frac{1}{7}=.9\tfrac{7}{7}$ and $\frac{3}{7}=.4\tfrac{2}{7}$, $\therefore \frac{4}{7}=.5\tfrac{5}{7}$. Therefore $\frac{4}{7}$ in table 2 is followed by $\frac{7}{7}-\frac{2}{7}=\frac{5}{7}$.

Again, since $\frac{1}{7}=.9\tfrac{7}{7}$ and $\frac{2}{7}=.2\tfrac{6}{7}$, $\therefore \frac{5}{7}=.7\tfrac{1}{7}$. Therefore $\frac{5}{7}$ in table 2 is followed by $\frac{7}{7}-\frac{6}{7}=\frac{1}{7}$.

Therefore, if the first half of the r's are 3, 2, 6,
the last half of the r's are 4, 5, 1,
and the sum of each couple is d, thus, 7. 7. 7.

We observe in the above operation a general law, viz: If we call the successive remainders that occur in forming R by division, M, M_2, M_3.....M_n, (M_n being $d-1$), followed by m, m_2, m_3.....m_n, we find that $m=d-M$; $m_2=d-M_2$.....$m_n=d-M_n=d-(d-1)=1$.

Mr. M. C. STEVENS, of Salem, Ohio, gives the following searching analysis of the *column*, in answer to note on page 41, February number:

Let $\frac{1}{d}$ be a fraction which reduces to a repetend.

Let $q, q_2, q_3.....q_n$ represent the successive digits of R in reversed order.

Let $1, s, r_3, r_4.....r_n$ represent the successive r's in reversed order.

Let $t_1, t_2, t_3.....t_n$ represent the successive terms of the *column*.

Let $f_1, f_2, f_3.....$ represent the successive 10's in the *column*.

The *column* evidently stands thus:

$t_1 = q$

$t_2 = qs \quad = 10f_1 + q_2 \therefore f_1 = \dfrac{qs - q_2}{10}$

$t_3 = q_2 s + f_1 = 10f_2 + q_3 \therefore f_2 = \dfrac{(10q_2 + q)s - 10q_3 - q_2}{10^2}$

$t_4 = q_3 s + f_2 = 10f_3 + q_4 \therefore f_3 = \dfrac{(10^2 q_3 + 10q_2 + q)s - 10^2 q_4 - 10q^3 - q^2}{10^3}$

$t_5 = q_4 s + f_3 = 10f_4 + q_5 \therefore f_4 = \dfrac{(10^3 q_4 + 10^2 q_3 + 10q^2 + q)s - 10^3 q_5 - 10^2 q_4 - 10q_3 - q_2}{10^4}$

&c., &c.

Substituting f_1 (from t_2) in t_3; and f_2 (from t_3) in t_4, &c., we get

$t_1 = q$

$t_2 = qs$

$t_3 = \dfrac{(10q_2 + q)s - q_2}{10}$

$t_4 = \dfrac{(10^2 q_3 + 10q_2 + q)s - (10q_3 + q_2)}{10^2}$

$t_5 = \dfrac{(10^3 q_4 + 10^2 q_3 + 10q_2 + q)s - (10^2 q_4 + 10q_3 + q^2)}{10^3}$

The law is now apparent, and we can write for the n^{th} term

$$t_n = \frac{(10^{n-2} q_{n-1} + 10^{n-3} q_{n-2} + \ldots + 10q_2 + q)s - (10^{n-3} q_{n-1} + \ldots + 10q_3 + q^2)}{10^{n-2}}$$

This equation may be read

$t_n = \dfrac{(a+q)s - \frac{a}{10}}{10^{n-2}}$, and substituting $\dfrac{qd+1}{10}$ for s, we have

$$t_n = \frac{(a+q)qa + q}{10^{n-1}}. \quad (A)$$

Let us next find the value of the r's:

$r_1 \quad = 1$

$r_2 (\text{or } s) = \dfrac{qd + r_1}{10} = \dfrac{qd+1}{10}$

$r_3 \quad = \dfrac{q_2 d + r_2}{10} = \dfrac{(10q_2 + q)d + 1}{10^2}$

$r_4 \quad = \dfrac{q_3 d + r_3}{10} = \dfrac{(10^2 q_3 + 10q_2 + q)d + 1}{10^3}$

$r_5 \quad = \dfrac{q_4 d + r_4}{10} = \dfrac{(10^3 q_4 + 10^2 q_3 + 10q_2 + q)d + 1}{10^4}$

The law is apparent, and we can write

$$r_n = \frac{(10^{n-2} q_{n-1} + 10^{n-3} q_{n-2} + \ldots\ldots + 10q_2 + q)d + 1}{10^{n-1}} = \frac{(a+q)d+1}{10^{n-1}} \quad (B)$$

Dividing (A) by (B), member by member, we get

$$\frac{t_n}{r_n} = q, \text{ or } r_n = \frac{t_n}{q}.$$

We have now shown that any member of the *column*, divided by the last digit of the repetend, gives for the quotient the corresponding remainder.—*Q. e. d.*

Mr. STEVENS also furnishes the following thorough demonstration of this well known property alluded to in the foregoing article by W. W., viz:

When we reach the remainder $d-1$ in the usual mode of obtaining R, we have obtained one half of the digits of R, and the remaining digits can be found by subtracting those already found successively from 9.

DEMONSTRATION.—Let $\frac{1}{d}$ be a fraction, which, when reduced to a decimal, gives a repetend in which the remainder $d-1$ occurs. We evidently have $\left.\begin{matrix}\frac{1}{d}=.R\frac{d-1}{d}\\ \frac{d-1}{d}=.R'\frac{1}{d}\end{matrix}\right\}$ in which R contains the digits before reaching the remainder $d-1$, and R' the digits after reaching that remainder.

But $\frac{1}{d}+\frac{d-1}{d}=1$. Hence there must be just as many places in R' as in R. For, supposing there are a less number of places in R' than in R; then, in order to add the right hand members of the equations, suppose the process of division in finding R be stopped, so as to make the number of places in R equal to the number in R'. It is manifest the remainder will be less than $d-1$, and the sum of the fractional parts will be less than unity; hence the sum of the second members cannot be equal to the sum of the first members, which is absurd. Consequently the number of digits in R' cannot be less than the number of digits in R.

Next, suppose the number of digits in R' to be *greater* than the number in R. Then, in order to add the right hand members, suppose the division to be continued till the number of places in R is the same as the number in R'. Again, the remainder obtained must be less than $d-1$, and, as before, the sum of the fractional parts will be less than unity, and the sum of the second members will not be equal to the sum of the first members, which is absurd. Whence, the number of digits in R' is neither greater nor less than the number in R. That is, the number in each case is equal.

Since $\frac{1}{d}+\frac{d-1}{d}=1$, then $R+R'=99.....9$ (1) repeated to as many places as there are digits in R or R'.

Whence $R'=99.....9-R$. *Q. e. d.*

COROLLARY.—It is manifest that the sum of the successive and corresponding remainders in reducing $\frac{1}{d}$ and $\frac{d-1}{d}$ is equal to d, or else the sum of the successive digits would not be equal to 9.

EDITOR'S DEPARTMENT.

AS our supply of back numbers is limited, those who desire complete volumes should send us their names at once.

By special agreement, the *Indiana Teacher* and the MICHIGAN TEACHER will be sent to any address for $2.00.

Rev. L. H. TROWBRIDGE, to whom we are indebted for a valuable article in this number, graduated from Kalamazoo College in 1860, and from the Theological Seminary in 1861. In July, 1861, he went to Three Rivers, then a missionary field, so far as the Baptists were concerned, and organized a church, which, as a result of eight years' labor, is one of the most prosperous in Michigan. Mr. TROWBRIDGE has recently resigned his pastorate, in order to enter upon the joint agency of Kalamazoo College and the Michigan Baptist Educational Society.

Some people seem to think that editors are omniscient. We have received several indignant letters from subscribers complaining of the non-receipt of numbers for periods of three to five months. On referring to our books, we are unable to find the names of our friends under the places written from, but after some search do find them under another town, the Postmaster of which notified us three or five months ago that the numbers were not taken out. We have one instance in mind of a gentleman who left the place from which he subscribed in August, 1868. In October the Postmaster notified us that the numbers were not taken out, and in the latter part of January, 1869, we were pathetically asked, "Why *don't* I get my MICHIGAN TEACHER?" If our friends change residence, and wish the TEACHER to follow them, they really

must inform us of the fact, and also *from* as well as *to* what place the transfer is to be made. "Please change my TEACHER to Claytown" is a trifle indefinite.

Notwithstanding the resolves of Supervisor DEWEY it seems certain that our Legislature has not the least disposition to meddle with the Superintendent system. The law is by no means perfect, but it has been productive of such good that it should be modified with the utmost caution. In this connection we can not forbear to publish entire the report of the Committee on Education.

The Committee on Public Instruction submitted the following report concerning the petitions in favor of the County Superintendents of Schools law:

Your Committee find that there are about fifty counties which have adopted this system, the law being applicable only to such organized counties as contain ten or more school districts. Up to the first day of November, the counties of Alpena, Antrim, Cheboygan, Chippewa, Delta, Iosco, Mackinac, Manitou, Marquette, Menominee and Ontonagon were not in condition to accept the terms of the law by reason of the lack of the required number of districts. It is safe to presume, however, that by the time another Legislature shall convene, such counties will be ready to take advantage of it. A careful comparison of the workings of the old system for the ten years preceding the introduction of the present one, with even the ten years past, has convinced your Committee, as they believe it will any person who looks into it, that the new *regime* has been a complete success viewed as a whole. The idea of "one man" supervision was to some extent novel, and as it also involved an additional expenditure of money, even while retrenchment was uppermost in the people's minds, the proposed change was by many conscientious, learned and well-meaning persons regarded at first in an unfavorable light. Public sentiment had on this, as on all other subjects, to be educated, led and urged along, and many objections, which could not be met and successfully answered at first, had to be left to time and the workings of the plan, when they became of little or no force.

As the friction incident to the new machinery has been, by attention, gradually overcome, the people have, to a large extent, acquiesced in the experiment, and seem willing and desirous to give the experiment a fair trial. Most of the Superintendents have been eminently successful, and where well paid and sustained by the good will and active efforts of the people, their usefulness is marked and admitted. The increase of improvement in the competency of the teachers themselves, under the searching surveillance of the County Superintendency during the past year, is fully twenty-five per cent. over the previous one, as will be seen by the report of the Superintendent of Public Instruction, and the uniform testimony of

those most earnest in primary school education is that there is a rapidly growing interest apparent on the part of pupil, teacher and people with reference to our schools, and this interest is mainly attributable to the close supervision, watchful care, encouraging words and rigid examinations which now obtain. It would be a step backward in civilization, as your Committee believe, to disturb the present arrangement, for there are no evils incident to the successful operation of the plan now being tried, but what experience, tact, and the application of good common sense will overcome.

In conclusion, your Committee would quote the following language of Hon. JOHN D. PIERCE, of Ypsilanti, a former successful Superintendent of Public Instruction, whose profound scholarship, enlarged experience, and thorough knowledge of what education should be, places him in his ripe old age in the very front rank of such as are competent to give opinions:

"I am aware that there is considerable opposition to the system of County Superintendency, and that an attempt will be made to repeal the law creating it. This opposition arises from two causes. It is said the office of County Superintendent is useless and involves unnecessary expense. This with *some* is the great objection. *Others* are opposed to the *office* because so many ignorant, unqualified teachers have been rejected. The complaint is that those who have certificates "ask such enormous wages." Had I been in the Legislature, I might have questioned the propriety of the change, for I could not have believed it possible that such a mass of ignorance had gained admission to the school-room, as I have found within the past year and a half. It seems incredible that parents should be willing to trust the training of their children to such incompetent persons. It is due that the present system have a fair trial. This cannot be done in two years. In Ohio this system has been in successful operation for some time, and has produced the happiest results. Why can we not expect a like result here? As this is in all probability the last report I shall ever make in regard to our schools, I thought it might not be unsuitable for me to say thus much on this subject."

Your Committee are unanimously in favor of the present system, believing that competent men, *well-paid*—and this is an important consideration—will do much towards raising the standard of teaching in our primary schools, and therefore they report adversely to the prayer of the petitioners.

PRACTICAL DEPARTMENT.

IN our last we gave some hints as to the method of conducting the *study* of Geography. The mode of recitation, however, is of equal importance with the mode of study. A true recitation is a reproduction of knowledge acquired by the pupil through his own efforts. In Geography especially, the parrot-like repetition of a text is no recitation—it is merely *lesson saying*. As before remarked, a text is worse than useless where the map is all-sufficient. The recitation must reproduce the facts of the previous study, either in language determined upon then between teacher and pupil, or, in the case of older students, of their own choosing.

In classes of moderate size several topics should be assigned in advance so as to give time for the pupils to arrange the recitation in their minds. As soon as one topic is recited, another should be given out. Each pupil must pass in turn to the map and indicate with the pointer every fact mentioned. In this the greatest exactness should be insisted upon. It is not enough to simply point to a bay—its entire outline must be indicated. In the case of rivers, their sources, changes of direction and points of discharge must be pointed out and described with precision. The neglect of this made the once popular recitation on outline maps a showy deception. Pupils learned a large number of *names* and would point rapidly to some part of the feature mentioned, but beyond this they gave it scarcely any attention. Indeed, many reciters would content themselves with fixing in the memory the location of the distinguishing number or letter attached to the mountain, town or river. Vagueness in description is particularly to be guarded against. It is no description of the source of the Danube to say that it rises in Germany, or of the Alps that they are in the south of Europe. In the former case, the division and the mountains in which the river originates must be stated; in the latter, at least the eastern and western limits and the adjacent countries.

Recitation on the map, however, is not the final test of mastery of the subject. A map, free even from name, letter or number, is after all *suggestive* to the memory. On the review the map must be rolled up, and the recitation conducted entirely by verbal description. This will prove a close test of the pupil's knowledge and an admirable discipline in language. Many, aided by the suggestive power of the map, can make a ready recitation when it is before them, but show their inexactness in study by utter failure in its absence.

A still closer test is furnished in the case of advanced classes, by conducting the recitation in writing. The advantages of this are too generally admitted to need discussion. In the final review the pupil should never know his or her topic until after rising.

To these methods of recitation on the map and description in its absence, either verbal or written, may be added graphic recitation or map drawing as distinguished from map copying. Like all other modes of recitation, map drawing is a reproduction of the pupil's knowledge of a country, and hence must come *after*, not *before* the acquisition of this knowledge. It is not a means of acquiring this knowledge, but a sign of its possession. Of course, like every recitation, it confirms this knowledge by repetition and renders it more exact. It is not to be understood that every feature of a country must be mastered before map drawing is entered upon. As soon as the coast-line is known it must be drawn, and similarly with mountains, rivers and other features.

A COURSE OF STUDY FOR A HIGH SCHOOL.

	1st Term.	2d Term.	3d Term.	
First Year.	Algebra. Phys. Geography. History.	Algebra. Botany. History.	Algebra. Botany. History.	C Class.
Second Year.	Geometry. Nat. Philosophy. German.	Geometry. Nat. Philosophy. German.	Astronomy. Science of Governm't. German.	B Class.
Third Year.	Chemistry. Ment. Philosophy. German.	Chemistry. Ment. Philosophy. German.	Physiology. English Literature. German.	A Class.

This course is designed for a small High School, or Academic Department, where the teaching force is small and it is not possible to carry out a fuller curriculum of studies. In many schools it is not possible to place all pupils under a rigid classification. Some enter for a term and wish to pursue elective studies, as they do not design to take a full course. In all cases, however, it is undoubtedly best to draw up a regular course of study for each term in the year, and, as far as possible, to place each pupil in one of the three or four classes. Even if all pupils cannot be thus classified, it will be of great advantage to have a known and fixed scheme of study for each term, as this of itself will necessitate a classification more or less perfect.

It will be found of advantage to give to each class a distinctive name—as the A Class (3d year), B Class (2d year), C Class (1st year). If convenient, the pupils in each class should be seated together.

As a school becomes larger, the above course can be extended to four years. As it now stands there will be twelve recitations each day, work which two teachers can do successfully. It will be noticed that each study is completed with the year. In small schools it is very difficult to keep up a class which is continued over the long vacation. A three years' course makes it necessary to finish Grammar, Geography and Arithmetic in the Grammar School. Instead of German, Latin, Greek or French may be substituted. At another time we shall give a synopsis of a four years' course.

It does not seem to be generally known that the authorized abbreviation of Professor is Prof., not Proff., as the custom of some is. This is often an ill-applied title, but as people *will* use it, even in its abbreviated form, it is no doubt best to use it properly.

Readers who occasionally buy "books which they cannot get along without," may be interested in the following. Some of the choicest selections may often be made from catalogues of Old Books, which may be procured from A. DENHAM & Co., 9 Barclay street, New York; DAVID G. FRANCIS, No. 3 Clinton Hall, New York; J. SABIN & SONS, 84 Nassau street, New York. The "Book Buyer" (SCRIBNER, WELFORD & Co., 654 Broadway, New York) gives full lists of all the valuable English books. Importations may be made through B. WESTERMANN & Co., 440 Broadway, New York.

Catalogues, pamphlets, &c., may be easily preserved as follows. Sort them by sizes into packages to suit convenience. Make the backs even, and then, with an awl, pierce three or four holes through each collection, an eighth of an inch from the back edge, and sew through and through with a stout thread.

A very simple experiment, illustrating the effect of atmospheric pressure, may be performed by taking a flask half full of water and bringing it to a boil. While boiling cork it up tight. So long as the upper part of the flask is full of vapor, no ebullition will take place, but on plunging the flask into cold water, the vapor will condense and a violent boiling commence.

Leaves are among the best objects for early lessons in Drawing, since when viewed in front they invclve no perspective. Unfortunately they are available only in the summer, and in the majority of cases are too small to be seen distinctly from a distance by an entire class. In all leaf drawing, however, we have two steps, the presentation of the general form and the delineation of details. This fact renders it possible to overcome to a considerable extent the difficulties named above. To teach the general form of the leaf, the present writer has successfully used large models of leaves cut from sheets of paper, 18 inches square or even larger. The model was colored, an appropriate tint of green in water colors, and the midvein and veins indicated. In some cases it was necessary to stiffen the paper by wires, fastened on the back behind the midvein and the principal veins with green silk. Such models can readily be seen by a class when suspended before it, and have the advantage of enabling all to work together, and thus reducing the necessity for individual instruction, no unimportant matter in a large class. The power to draw the general form once acquired, the pupils fill in the detail from real leaves, of which each has one. In winter, pressed leaves will serve, though not quite as well. Of course, this work must at first be gone through with by the teacher on the blackboard, before the pupils attempt it, who, as they progress, may be left more to themselves. A further use of these models may be made by combining them in groups.

Book Notices.

MARK'S First Lessons in Geometry. New York: *Ivison, Phinney, Blakeman & Co.* 1869. pp. 156.

Can Geometry be taught objectively, or in the concrete? If it can, then it is a fit subject for children to study. Otherwise it is not. History goes to show that this science, though now concerned almost exclusively about abstract truths, had its origin in simple experiment—in the attempt of the ancient Egyptians to determine the divisions of land, made necessary by the annual inundations of the Nile. The opinion is daily gaining ground among our best teachers, that the study of Geometry might begin much earlier, even in childhood. There is no doubt that this is practicable, provided the subject can be presented inductively. This little book embodies an attempt of this kind; and, without having used it, we are of opinion that the plan is well carried out. It seems to us that by means of this work children can be profitably interested in a science which is usually thought difficult for grown up people.

Allen's Latin Grammar. Allen's Latin Lessons. By William F. Allen and Joseph H. Allen. Boston: *Woolworth, Ainsworth & Co.* 1869.

Grammarians have made the study of the ancient languages unnecessarily difficult by putting into the books, designed for beginners, a multitude of minutiæ which have no proper place outside of an encyclopædia, but which perplex and disgust the pupil, be he never so studious. An elementary text-book should not be written to exhibit all the refinements and niceties of the subject, but should present in a clear manner the great facts which are to serve as the foundation for subsequent acquisitions. This needless accumulation of dry details is the fault of most Latin and Greek Grammars.

The work mentioned above is a noticeable exception to a rule almost universal. We do not see how a wiser selection of matter could have been made, or a clearer mode of presenting each topic. We almost wish we were to learn Latin anew, that we might not lay up hard feelings towards a language we have learned to love, in spite of the difficulties which attended our first acquaintance with it.

The Reader is based entirely upon the *Commentaries* of Cæsar. It seems to us that this is a very judicious plan. The first lessons embrace the simple combinations of words which occur in the earlier chapters, and which illustrate the most general principles of syntax. By a well graded course of lessons the learner is soon introduced to the pure and elegant Latinity of the Great Roman Soldier. All in all, these books are, in our opinion, the most perfectly adapted of any we have seen for first instruction in Latin.

COMMON SCHOOL ARITHMETIC. By JOHN H. FRENCH, LL. D. New York: *Harper & Brothers.* 1869. pp. 335.

Mr. FRENCH, in his "First Lessons," and "Elementary Arithmetic," has been very successful in his effort to write good books for children. He has the happy faculty of presenting a subject in an attractive, *clear* manner. We do not hope to see a more successful attempt to teach the elementary truths of number in the *concrete*, than in these two little books. This new book of the series is upon the same general plan, and shows the same wise care in its preparation. It is a thoroughly good book. In almost all works of this kind pupils are taught a mode of subtracting, *which nobody ever uses in actual business*—that of *borrowing* from the next left hand figure of the minuend. In this matter the author is simply sensible. He teaches a method which is actually used in practice! The identity of Multiplication and Addition (p. 36), is shown in such a way as to greatly simplify the former subject. The characteristics of the book as a whole are a judicious selection and arrangement of subjects, and a clear exposition of each process.

INTRODUCTION TO ENGLISH LITERATURE. By HENRY N. DAY. New York: *Charles Scribner & Co.* 1869.

This is *manual* as distinguished from a *history* of English Literature. Its object is to bring the student into direct contact with masterpieces in the language. To this end, instead of presenting brief fragments, entire poems are given and furnished with appropriate philological and historical notes. The examples, with two exceptions, are poetry, for which the author has doubtless his reason, yet a specimen of JOHN MILTON'S prose would be a welcome addition to the extracts from HOOKER, ADDISON and MANDEVILLE.

The first part of the work consists of a chapter on the Origin and Affinities of English, and of the Representative Selections. In these we first have examples from the translations of the Bible by WYCLIFFE, TYNDALE, the Geneva and the Authorized versions. Following this are selections from the Vision of Piers Ploughman, from MANDEVILLE, CHAUCER, SPENSER, HOOKER, SHAKESPEARE, MILTON, ADDISON, POPE, COWPER, TENNYSON and LONGFELLOW. Each specimen is prefaced by a biographical sketch, and followed by copious notes. The second part comprises an account of the elements of the English Language and Literature. In this are discussed the Formation and Growth of Language, and the Departments of Language and Literature. A Chronology of English Literature, a Glossary and a full Index complete the work. It is a most excellent book and occupies a field almost entirely new. That it supplies a want in school literature there can be no doubt, and it is to be hoped that it will soon find its way into our High Schools.

The GALAXY, published by Messrs. *Sheldon & Co.*, New York, has become one of the most readable periodicals in the country. Of especial interest to teachers are the articles by RICHARD GRANT WHITE, "English Grammar," "The Grammarless Tongue," "Is Being Done," etc. The views on Grammar here developed are similar to those held by Prof. SILL in his *Synthesis.*

GRAY'S SCHOOL AND FIELD BOOK OF BOTANY. By ASA GRAY. New York: *Ivison, Phinney, Blakeman & Co.* 1869. pp. 386.

GRAY'S School and Field Book of Botany seems to be just the text-book for beginners and for those who wish to study Botany without a teacher, being more simple than the higher botanical works, and more comprehensive than the introductory ones in common use. Many will be rejoiced to find so safe a guide to our cultivated plants. Formerly, we felt it a severe trial to the patience, when from an ordinary text-book we could learn all about any plant indigenous in our fields or woods, but searched in vain for a description of the exotics that grew in our window or flower garden.

Messrs. J. W. SCHERMERHORN & Co. have undertaken a commendable enterprise in the issue of the *Library of Education*. It is to contain in handy little volumes, at a cost of 15 cents each, a reprint of valuable educational literature, otherwise difficult of access. Among the works promised are ASCHAM'S Schoolmaster, PESTALOZZI'S Leonard and Gertrude, besides the educational writings of MILTON, J. S. MILL, DE MORGAN, MANN, CHANNING, PLATO and XENOPHON. The first issue is JOHN LOCKE'S Thoughts concerning Education.

In LIPPINCOTT'S MAGAZINE for April Mr. GEORGE H. CALVERT has an able article on College Education, discussing the method of teaching and the course of study. The distinction between hearing lessons and teaching is forcibly pointed out, and the predominance of the former condemned. Mr. CALVERT believes that the text-book might with advantage be banished and all instruction be given orally by the teacher. In this he is undoubtedly right, and such a method would develop a larger self-activity in both teacher and student. In regard to the course of study, while Mr. CALVERT would not exclude Latin and Greek, nor diminish the time devoted to them, he would give increased attention to English language and literature. Prof. SCHELE DE VERE sketches the advance of geographical discovery in Our Globe in 1869. CHAS. G. LELAND furnishes another of the inimitable HANS BREITMANN Ballads, and THADDEUS NORRIS an article of great interest on the Shad. The serial stories, "Beyond the Breakers," and "Over Yonder," are continued, the latter being decidedly the better.

The April issue of *Hours at Home* has a deeply interesting paper on BISMARCK, by Prof. E. P. EVANS, of Michigan University. He does justice to his good qualities, but, passing over the Schlesswig-Holstein question, does not, of course, treat of BISMARCK'S dishonesty and duplicity through the whole Danish war, and hence, perhaps, gives too favorable an impression of his character. Prof. E. C. WINES discusses the Prison question, and Prof. J. H. SEELYE the Ground and Nature of Punishment. Teachers will be interested in a brief sketch of PESTALOZZI, translated from the *Gartenlaube*.

EDUCATIONAL INTELLIGENCE.

MATTERS AT HOME.

BURR OAK. The new school building will probably be completed this month. It is of brick and will cost $18,000.

ROCKLAND.—Two typographical errors occurred in our account of the Union School in the February number. The principal is Prof. E. A. WHITWAM, and the teacher in the Second Primary, Miss SARAH PECK.

TECUMSEH,—Contracts have been let for a new Primary School building to cost $8,000.

LAWRENCE.—Mr. S. G. BURKED, a member of the class just graduated from the State Normal School, has been engaged as Principal of the Union School. He will be assisted by Mrs. S. G. BURKED.

STANTON.—The Union School is in charge of Mr. J. C. MATTISON, assisted by Miss ETTIE J. MEACH and Mrs. DORLAND. There are now in attendance about 175 pupils. The school is highly successful, and is increasing so rapidly in number as to require additional room.

BERRIEN COUNTY.

Supt. H. A. FORD has been unanimously renominated. This is a deserved tribute of respect to one of the most active and efficient men in the Superintendency. Supt. FORD will hold a series of Spring Institutes, as follows: Niles, April 12–13; Dayton, April 14–15; Three Oaks, April 16–17; Pipestone, April 19–21, Berrien Springs, April 22–24; Coloma, April 26–28; Benton Harbor, April 29–30.

ADRIAN.—In response to a resolution of the Board of Trustees, Supt. N. H. WINCHELL has made the following recommendations in regard to necessary changes and enlargements in the High School:

1. The establishment of a Teachers' Training Department, or Normal School, to be under the charge of an able and experienced teacher, to act as Principal. Such a department would answer a demand which now our public schools are unable to meet. The normal course of study should consist of three years, the first two embracing branches already taught in the regular High School course, thus avoiding the formation of special classes, and the third being devoted mainly to the theory and practice of teaching, under the instruction of the Principal, and to their application in the model schools.

2. The appointment of another regular teacher for the classes of the High School, in addition to the three already employed.

3. The appointment of a teacher of penmanship and book-keeping, who shall devote his entire time to giving instructions in those branches, relieving the teachers in all the schools from giving instruction in penmanship, or, at least, from giving daily lessons in it.

4. That arrangements be made with some competent teacher of vocal and instrumental music, for introducing music into the schools more generally and more systematically.

5. That similar arrangements be made for introducing painting and drawing into the schools.

6. That steps be taken for expending the library money now in the hands of the Board in the purchase of books for a school library.

7. That a good supply of philosophical and chemical apparatus be purchased for illustrating the principles of natural philosophy and chemistry.

8. That the pupils of the High School be divided into four sections, to be seated in four rooms, under the charge of the four teachers above recommended.

In conclusion, Supt. WINCHELL remarks:

"If the foregoing changes be carried into effect, they will place our High School at once in the front rank. It seems to me that the public sentiment of the city demands the best of schools, that the liberality which has provided for the erection of such a noble school house, will not be satisfied with any half-way work inside its walls, and that the public intelligence that can appreciate such a building, will not be cheated with the delusion that good school houses make good schools."

MATTERS ABROAD.

AMERICAN.

An exchange states that there are 2,600 under-graduates and 1,400 professional students in the New England colleges.

INDIANA.—The State Superintendent reports in 1868 591,661 children within the school age, 8,594 school districts, 425,745 pupils attending Primary Schools, 10,991 attending High Schools, 6,462 male teachers, 4,236 female teachers; average daily pay of male teachers in Primary Schools, $1.85; of female teachers, $1.42; of male teachers in High Schools, $3.23; of female teachers, $2.10; amount expended for tuition, $1,474,832.49; number of school houses built during the year, 424. The total school fund of the State is $8,259,341.34.

CALIFORNIA.—The Senior Class of the State Normal School numbers 53; ladies, 45, gentlemen, 6; the Junior Class 92; ladies, 84, gentlemen, 8. There are 145 pupils in the Training School.

FOREIGN.

ENGLAND.—An exchange states that Cambridge University will admit women to all its rights and privileges this year; the examinations taking place next July. Candidates are to be 18 years of age, and must apply before the first of May.

PRUSSIA.—The minister of education VON MUEHLER recently received quite a severe handling in the Prussian parliament. Herr RICHTER enumerated the sins of the minister, among others the forcing a certain reading book upon the Hanoverian schools. This reader is a remarkable production, and contains a large amount of "goody" literature. The minister replied and referred to his literary productions. Upon this a naughty member on the left called out, "Right from the tavern come I now," the first line of a drinking song by the minister. A conservative school counsellor, Herr WANTRUP, carried off the palm. He declared that those who opposed the minister were senseless people, devoid of faith, believers in the descent of man from the apes. He said that the people did not desire self-government, but to be strongly ruled. He defended the inspection of the schools by the clergy, and discussed the rule forbidding teachers to wear mustaches. He said it was altogether improper—a teacher should not wear one any more than a clergyman. He closed amidst uproarious laughter. The minister then defended the sectarian character of the common schools, and was followed by Herr SELCHOW, who condemned the almost absolute control of the schools by the orthodox Lutherans. RUDOLPH VIRCHOW closed the debate with some vigorous remarks in the same strain.

Such scenes are a sign of the times. The Prussian Ministry of Education are straining every nerve to make the schools mere engines of state craft, while the liberals and the thinking teachers are equally resolved on schools free from the influence of either Church or State.

The Michigan Teacher.

Vol. IV.—YPSILANTI, MAY, 1869.—No. 5.

Does the Earth Move on its Axis?

PROFESSOR SCHŒPFFER, of the University of Berlin, says it does not. In a lecture to the university students he enters into a lengthy scientific discussion of the question, and maintains that the Copernican theory is not only destitute of proof, being a plausible assumption which has somehow gained acceptance, but is capable of disproof. He remarks that he reluctantly relinquished his views of the truthfulness of the Copernican theory, inasmuch as he had long taught it to the university students, having been led to re-examine the whole subject after witnessing the celebrated experiment of Leon Foucault, performed by that eminent philosopher. The experiment itself had been accepted by the world as undeniable evidence of the revolution of the earth; and at this day we find it stated in many treatises on natural philosophy that the *pendulum* has been used to demonstrate the revolution of the earth on its axis. After an extensive research he was struck with the fact, that there never has been, till the day of Foucault, any direct proof given or attempted, and that the so-called proofs are but attempts to accommodate the *status* of nature as we behold it, to the assumed revolution.

Foucault's proof consists in suspending a pendulum, free to vibrate in any direction, and allowing it to take its own course

Entered according to Act of Congress in the year 1867, by Payne, Whitney & Goodison, in the Clerk's Office of the District Court of the United States, for the Eastern District of Michigan.

after receiving an impulse in the north and south direction. It was discovered that its vibration gradually verges out of the north and south direction, until it finally vibrates due east and west. The revolution of the earth on its axis was assumed by FOUCAULT as the cause, and was explained in the following manner:—Imagine two parallels of latitude to pass, one through the northern extremity and the other through the southern extremity of the arc of the pendulum as it vibrated at first in the north and south direction. It is evident that, for the northern hemisphere, the southern parallel would be the greater circle, and that every point in it would have a greater velocity as the earth revolved, than any point in the northern circle. Suppose the ball of the pendulum to be placed in the northern circle. It has at that moment the velocity of revolution which the northern circle may have. It is now allowed to oscillate due south. It will not strike the point in the southern circle which is due south from its starting point, owing to the greater velocity in the eastward direction of all points in the southern circle, but will strike it at some point west of due south. On its return to its starting point it partakes of the greater velocity of the eastward motion of the point where it struck the southern circle, and is consequently unable to strike the point from which it started in the northern circle, but passes further to the east. The same is repeated in each double oscillation, till at last it vibrates directly east and west in a single parallel of latitude. Just at this point, according to Dr. SCHŒPFFER, is the trouble with this demonstration. When the pendulum has reached an east and west vibration, the cause for further deviation ceases, provided it be the revolution of the earth; for all points in the same parallel, in which it then vibrates, revolve with equal velocity. But the deviation strangely continues and the vibration passes again to the north and south direction. Hence Dr. SCHŒPFFER disputes the assumption of FOUCAULT that the cause of deviation is the revolution of the earth on its axis.

Again, Dr. SCHŒPFFER further objects to this demonstration, in that the deviation is not uniform in all pendula, but heavier ones move slower from the north and south direction, which

could not be the case if the revolution of the earth were the cause, inasmuch as that would be a uniform force.

The objection of the Indian Bramagupta, of Philolaus, of Aristarch of Samos, was based on the impossibility of the velocity required for the heavenly bodies to make their revolutions in twenty-four hours. Dr. SCHŒPFFER admits that it is an objection, but maintains that it is *no reason*, and answers that it has been demonstrated that light moves at the rate of 40,000 miles (German) in a second, and electricity swifter still, velocities which were deemed impossible then, and would still be by an untutored mind.

The oblateness of the earth, assumed to be a fact on insufficient data, has been given as an effect of the rotation of the earth. It, however, may be accounted for on the supposition that the greater accumulation of geological strata through a long period of time, owing to the more rapid growth both of animal and vegetable life, has produced a prominence in the equatorial latitudes; or that the greater heat of those regions causes a greater expansion of the superficial strata; or that both these causes combined have operated to produce the oblateness. This assumed cause has also been formerly rejected by others.

Another method of demonstration of the revolution of the earth on its axis, is to attribute the variation in the force of gravity in different latitudes, and in different elevations above the level of the sea, to that cause. The experiments of RICHTER in 1672 demonstrated that a correct clock, moved from Paris to Cayenne, five degrees to the north, would lose 2½ minutes, and that to insure its accuracy the pendulum must be shortened one and one-fourth lines. Hence it was assumed that gravity must be greater towards the poles and in valleys than at the equator and on the tops of mountains. This supposed diminution of gravity was accounted for on the further supposition that the greater centrifugal force at the equator would produce there the greater diminution of the force of gravity. Dr. SCHŒPFFER proceeds to argue that this retardation of the pendulum may be as satisfactorily explained in other ways, allowing the earth to be stationary. First:—According to a law of natural philosophy, the force of gravity decreases as the distance from the

center of the same increases. If the earth be oblate, the pendulum at the equator is farther from the center of gravity of the earth than at any place north or south; and this increased distance would account for any apparent diminution of gravity; and would also explain the retardation of the pendulum, provided its uniform vibration depends on the uniformity of the force of gravity.

Second:—Dr. SCHŒPFFER is bold enough to assert that the cause of this retardation is just the reverse of that which is generally assumed. If it be granted that there is an increase of matter at the equator, there must be increased attraction, which would increase the weight of bodies, as the lens of the pendulum. The rapidity of the oscillation of the pendulum depends almost or altogether on the weight of the lens and not on the length of the rod. Lengthening the rod only increases the lever, which is the same as giving weight to the lens. LAUGIER, by nice experiments, found that a pendulum which needed 1977 seconds for 2000 oscillations with a lens of two kilogrammes weight, for the same number of oscillations with a lens of four kilogrammes required 2010.55 seconds; with a lens of six kilogrammes, 2020.31 seconds; and with a lens of eight kilogrammes, 2027.04 seconds. In short, the heavier the lens, the slower the oscillation. (See COMPTES rendus de l'academie française, T. XXI, p. 117–124, 1st.) These facts go to show that the retardation of the pendulum is caused rather by an increase in the force of gravity than by a diminution.

From this discussion Dr. SCHŒPFFER draws the following inferences:

1st. That the GALILEAN laws for the oscillation of the pendulum are not entirely correct.

2d. That the decrease of the force of gravity at the surface of the earth, toward the equator, is probably a wrong inference.

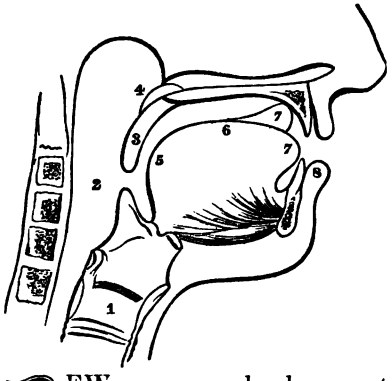
3d. That the accepted laws of falling bodies are not entirely correct.

4th. That calculations by natural laws are generally uncertain, without experiment.

(To be continued.)

The Education of the Vocal Organs. How the Vowels are Formed.

BY A. A. GRIFFITH.



1. The Larynx.
2. The Pharynx.
3. The Soft Palate.
4. The Nasal Passage.
5. Back of Tongue,
6. Front of Tongue,
7. Point of Tongue,
8. Lips,

} The Mouth.

FEW persons who have not investigated the subject are aware of the possibilities of culture of the vocal organs. We have above a very good representation of these organs, as they are presented in the *Drill Book of Elocution and Oratory.* After much experience, and observation of different persons, we have come to the conclusion that the harsh, unpleasant and monotonous voices which we often hear, are the result of *neglect*, or bad habits, and our object in this will be to show *how the vowels are formed*, how the fundamental tone, made by the passage of air through the glottis, is modified, so as to enable us to distinguish the different vowels and their combinations. We shall hope to satisfy all that it is as unreasonable to expect a modulated voice, varied and pleasant to the ear, without learning to control the modifications of the mouth, which change the fundamental tone into agreeable speech, as to play well upon a flute without learning its stops.

It is very gratifying to find after years of investigation that the opinions to which you are led, are sustained by eminent scientific men of other countries. Having given the results of much study in the *Drill Book of Oratory*, which was published last spring, we shall in this article quote, so far as is necessary

for our purpose, from Prof. TYNDALL'S Lectures on Sound, in which the opinions of other distinguished scholars are often made use of. The vocal organ is placed at the top of the trachea, and forms a head so adjusted as to become an attachment for certain elastic bands or chords which almost close the aperture. When the air is propelled from the lungs (see article on the management of the breath) through the slit which separates these vocal chords, they are thrown into vibrations. By varying their tension, by the action of different muscles with which they are surrounded, the rate of vibration is varied, and the sound changes in *pitch*. The vibrations of the vocal chords are not affected by the resonance of the mouth, and hence the only changes in the fundamental tone are in pitch, caused by the quickness or slowness of the vibrations of the chords. But we shall see that the resonance of the mouth, by modifying or reinforcing the high or low tones, influences in a striking manner the quality of the voice. The smoothness and sweetness of the fundamental tone depend upon the perfect closure of the slit between the vocal cords, at regular intervals during the vibrations. The roughness of the voice in colds is due to mucous flocculi, which get into the slit of the glottis, and which may be seen by means of the laryngoscope. The squeaking falsetto voice with which some persons are afflicted is thought to be produced by the drawing aside of the mucous layer which ordinarily lies under and loads the vocal chords. Their edges thus become sharper and their weight less, while their elasticity remaining the same, they are shaken in more rapid tremors. The formation of the vowel sounds of the human voice long ago excited philosophic inquiry. Why is it that we can distinguish one vowel sound from another, while assigning to both the same pitch and intensity? What is the quality which renders this distinction possible? In 1779 this was made a prize question by the academy of St. Petersburg, and KRATZENSTEIN gained the prize by the successful manner in which he imitated the vowel sounds by mechanical arrangements, and quite recently the theory of vowel sounds has been made the subject of exhaustive inquiry by HELMHOLTZ, a distinguished German philosopher. By associating with a vibrating reed a suitable pipe, we can impart to the

sound of the reed the qualities of the human voice. In the vocal organs the reed is in the vocal chords, and associated with the reed we have the resonant cavity of the mouth, which can so alter its shape as to resound, at will, either to the fundamental tone of the vocal chords, or to any of their harmonic or overtones. Through this agency of the mouth the different *vowel* sounds are made. Is has been experimentally proved by HELMHOLTZ that every quality or clang, however complicated, may be reduced to a series of simple tones, beginning with the deepest or fundamental tone and rising through others whose rates of vibration are multiples of the rate of the fundamental. If we call the fundamental tone of a quality the first tone, and call the tones whose rates of vibration correspond to twice, three times, four times, five times, etc., that of the fundamental, the second tone, the third tone, fourth tone, fifth tone, and so on, we shall be able to define with greater clearness the manner in which such tones are blended in the production of the vowel sounds. For the production of *u*, in "full," we put the lips forward so as to make the cavity of the mouth as deep as possible, at the same time making the orifice of the mouth small. This arrangement corresponds to the deepest resonance of which the mouth is capable. The fundamental tone of the vocal chords is thus strengthened or reinforced, while the higher tones are thrown into the shade. The element *u* is rendered a little more perfect when a feeble third tone is added to the fundamental. The vowel *a* is pronounced when the mouth is so far opened that the fundamental tone is accompanied by its higher octave. The vowel *a* derives its character from the third tone, to strengthen which by resonance the orifice of the mouth must be wider, and the column of air smaller than in the last instance. The second tone ought to be added in a moderate degree. To produce *e*, the fundamental tone must be weak, the second tone comparatively strong, the third feeble, but the fourth, which is characteristic of this vowel, must be intense, and the cavity of the mouth small. The skillful singer finds she can sing the vowel *e* in her highest notes where *u* is impossible. In the production of *ah!* the higher harmonic or overtones come principally into play, the fifth and seventh being added strongly; hence it is seen that as

we may blend in various ways the elementary tints of the solar spectrum, producing innumerable composite colors, so *by educating the mouth* we may blend the elementary sounds so as to produce every possible variety of quality, and all are needed for the exhibition of the varied emotions of the mind. By reference to the *Drill Book of Elocution and Oratory*, page 28, it will be seen that we have exhibited the lips, teeth and mouth formations for the proper production of the vowel sounds, and we say again that we should as soon expect to hear a person sing well who had never studied music, or play the violin without learning to handle the bow or finger the strings, as to speak with a varied, modulated voice without the practice of these elementary principles of speech. The roof of the mouth is an arch; and the tongue, as its various parts, the back, the front, or the point, are presented to the back front or rim of the palatal arch or the upper gum, gives a great variety of configurations to the channel of the mouth. From each of these configurations the passing tone receives an audibly different effect, of vowel or consonant quality. Further modifications result from the degree of contraction of the lips, the teeth, and the condition of the guttural passages. To give the voice the full effect of round, smooth and agreeable tone, the free use of the cavity of the mouth is indispensable. A smothered, imperfect and lifeless utterance is the necessary consequence of restraint in the play of this most effective implement of speech. And hence we do not err when we say that a monotonous, harsh or weak voice is the result of *neglect*, or of *bad habits of utterance.*

ORAL INSTRUCTION.

BY MISS S. C. STERLING.

ANIMALS. SECOND STEP. THE LADY BIRD. PARTS, POSITION, DESCRIPTION AND USES OF PARTS.

Time occupied, 30 minutes. Average age of children, 8 years. Time attended School, 15 months.

THE teacher, having the class before her, says, "I am now going to give each of you a bug, and you may tell me what they are." The children say, "They are lady bugs." *T.* Did you ever hear them called by any other name? *Ch.* No. *T.* The right name for them is lady birds; you may all tell me now what they are. Children repeat in concert, "Lady birds." *T.* How many ever saw one before? Class all raise hands. *T.* Where have you seen them? *Ch.* On the bushes, on the sidewalks, on the grass. *T.* Now you may all look at your lady birds and find some one part of them. Children raise hands. *T.* Mary, what have you found? "The wings." Mary points to the wing cases and calls them wings. *T.* Mary, you may lift up these you call the wings, and see what you find under them. Mary lifts them up and says, "There are some more wings." *T.* Yes, but these are the true wings, and the ones you first found are the covers of these true wings. You may all show me the true wings. The children point to them. *T.* You may all show me the covers of the wings. Now, instead of calling these upper ones the wing covers, I will tell you a better name; we call them *wing cases.* What do we call them? "*Wing cases.*" The teacher now asks them to make a nice statement about this. A child says, "*The lady bird has wings.*" *T.* You may now spell these words, and I will write them on the board. Child spells and teacher writes the whole statement. *T.* Some one else may make another statement. Another child says, "*The lady bird has wing cases.*" *T.* Yes, that is right; you may spell those words for me. The child spells and the teacher writes this statement also on the board. *T.* Some one may now find another part. *Ch.* The legs. *T.* All find the legs. What have you found? *Ch.* Legs. The teacher now

calls upon some child to make a statement as before and spell, which she puts upon the board.

In the same manner the children are led to find the *head*, *body*, *eyes*, *claws*, *&c.*, each forming a statement, and spelling the words, which the teacher writes upon the board. She then says, "But there are some more parts which you have not found; look closely now and see what more you can find." The teacher points to the head and tells them to look at that. A child here discovers the feelers and points to them. *T.* How many are there? *Ch.* Two. *T.* We will call these feelers. You may now make another statement about this, which I will write on the board.

T. Look again now very closely, and see if you can find anything else. A child finds the horns. *T.* What do these look like? What should you think they were? *Ch.* Horns. *T.* Yes, that is right, they are called horns. This is also written on the board by the teacher, the children spelling as before.

The teacher now calls upon each child to point to a part and name it, as a recapitulation of what they have passed over, the class deciding if right.

As a recapitulation in another manner, the teacher herself points to each part and asks the pupils to name it as she touches each part.

Position of Parts.—*T.* You may look closely now and tell me where the wings are. *Ch.* They are under the wing cases. The children are told to make a nice statement of this. One child says, "The wings are under the wing cases." *T.* That is right; you may spell those words, Henry, and I will write them on the board.

T. Another may tell me where the wings and wing cases are. *Ch.* They are on the bug's back. The children are led to make a statement of this, thus, "The wings and wing cases are on the back," which she also puts on the board. *T.* Now tell, where are the horns? *Ch.* They are on each side of the head. *T.* Where are the feelers? *Ch.* The feelers are on each side of the head. *T.* Where are both feelers and horns? *Ch.* The feelers and horns are on each side of the head. This is also written upon the board, and also the position of the eyes, head, &c.

DESCRIPTION OF PARTS.—*T.* Look now at the wing cases and tell me something about them; how do they look? *Ch.* They are *red* and *spotted.* *T.* Some one else tell me something more. *Ch.* They are smooth. *T.* Another. *Ch.* They are bright. *T.* Now, Maggie, tell me all about the wing cases. *Ch.* *The wing cases are red, spotted, smooth, and bright.* Children repeat simultaneously, spell, and teacher writes upon the board. *T.* You may come and feel of the wing cases; now, what can you say? *Ch.* They are hard. *T.* Another may come and break them. Now, what can you say? *Ch.* They are brittle. *T.* What more can be said about the wing cases now? *Ch.* They are hard and brittle. (S. R. Ch. spell. W. B.) *T.* What do you find under the wing cases? *Ch.* The wings. *T.* How do you know they are there? *Ch.* We took off the cases and found them. *T.* Why not find them with the wing cases on? *Ch.* We could not see through the cases. *T.* What can you say of them, then? *Ch.* They are opaque. *T.* Why? *Ch.* Because we can not see through them. (S. R. Ch. spell. W. B.)

T. You may look at the wings and tell me what you can say of them. *Ch.* I can see through them. *T.* What can you say of them? *Ch.* They are transparent.* (S. R. Ch. spell. W. B.) *T.* What else can you say of the wings? Try and tear them. *Ch.* They tear easily. *T.* Why? *Ch.* Because they are thin. *T.* Then, what can you say of them? *Ch.* They are thin. (S. R. W. B.) *T.* When the lady bird flies, where are the wings? *Ch.* They are spread out. *T.* Where are they when he alights on a bush? *Ch.* Under the cases. *T.* How do you suppose he gets them there? *Ch.* He slides them under—puts them under—folds them up. *T.* Yes, he folds them; and what, then, can you say of them? *Ch.* They are pliable. *T.* Why? *Ch.* Because he can fold them. (S. R. W. B.)

T. Look at the legs and tell me what you can say of them. *Ch.* They are short. *T.* What else can you say? *Ch.* They are slender. *T.* See what they have in them. *Ch.* Joints. *T.* What can we say of them, then? *Ch.* They are jointed. *T.* Tell me what color they are. *Ch.* Black. *T.* Now tell me all about the

* Such terms as brittle, opaque, transparent, cylindrical, &c., are supposed to have been developed previously in lessons on form and objects.

legs. *Ch.* The legs are short, slender, black and jointed. (S. R. Ch. spell. W. B.) *T.* You may look at the feelers and tell me all about them. One says, they are long and slender. *T.* Yes, that is right, but tell me what shape they are; what do they look like? *Ch.* Like a cylinder. *T.* What shape are they, then? *Ch.* Cylindrical. *T.* Now tell me all you can about the feelers. *Ch.* The feelers are long, slender and cylindrical. (S. R. W. B.)

USES OF PARTS.—*T.* You may tell me the use of the wing cases. *Ch.* To cover the wings. *T.* Why? *Ch.* To keep them from getting hurt. *T.* Yes, or to protect them. (S. R. W. B.) *T.* Another child may tell me the use of the wings. *Ch.* To fly with. (S. R. W. B.) *T.* Tell me the use of the legs. *Ch.* To walk with. *T.* The use of the claws. *Ch.* To stick to the leaves and bushes. (S. R. Ch. spell. W. B.)

The children now read from the board, as it has been written, in review, the teacher questioning them on the different parts of it.

Matter as it has been written by the Teacher:

THE LADY BIRD.

PARTS.

The lady bird has wings.
The lady bird has wing cases.
The lady bird has legs.
The lady bird has a head.
The lady bird has a body.
The lady bird has eyes.
The lady bird has claws.
The lady bird has feelers.
The lady bird has horns.

POSITION.

The wings are under the wing cases.
The wings and wing cases are on the back.
The horns and feelers are on each side of the head.
The claws are at the end of the legs.
The eyes are on each side of the head.
The legs are below the body.

DESCRIPTION OF PARTS.

The wing cases are red, spotted, smooth, bright, brittle, hard, and opaque.

The wings are transparent, thin and pliable.
The legs are short, slender, jointed, and black.
The feelers are long, slender, and cylindrical.

USES.

The wings are to fly with.
The wing cases are to protect the wings.
The legs are to walk with.
The claws are to cling to things with.

The teacher now erases the matter from the board, leads the children to reproduce the statements separately, and reviews them thoroughly upon the whole lesson. The class is afterwards required to write the lesson from memory upon the slates.

In giving the lesson, when the pupils fail to give the required answer, the teacher should not tell them, but must lead them by skillful questions to find it out for themselves.

DEAR TEACHER:—Can you tell why in our State and County Institutes so little aid is given by women, or rather why so little is asked of them?

Surely it is not because there are not women fitted to do just as good work in those Institutes as is now done there.

Mr. TEACHER, you must know of women in this State that, in their respective departments of practical instruction, are not excelled, yet we never hear of their adding their skillful methods, their unsurpassed illustrations, their genuine enthusiasm and true womanliness to the talents their brothers are displaying and making useful.

You need not be told that the best primary teaching is done by women, that women know more of that work than men. Certainly their help is needed at the gatherings where teachers are taught. Why are they not there?

Not a suitable work and place for them? Then drive them from the school-room altogether.

They have not time, their schools could not dispense with their presence? What, then, becomes of the school whose Principal is away at an Institute a week at a time?

The State, the County could not afford to pay them? Remember, women teach at half price now, and are in a fair way to do so for some time to come.

Really your correspondent can see but one valid objection to employing women at these Institutes; it is that but few ladies could or would give an evening lecture for the general instruction of the people. Such lectures are understood to be a part of the Institute work. This objection is met when we consider that the school interests of the State suffer more from the want of thorough practical instruction than from a deficiency of lectures. The able School Superintendent of Washtenaw County, Mr. PIERCE, has been assisted by his daughter during the last year; the improved condition of the schools of that county tells that her assistance was of no inferior order.

Now I contend that some of this work can be done just as well by women as by men, that the interests of education demand the peculiar aid that can be thus given, and that the State is able to pay for it.

A QUESTIONER.

ORIGIN AND PROGRESS OF THE MICHIGAN SCHOOL SYSTEM.

Paper read before the Association of County Superintendents, at Marshall, July 9, 1868. by Hon. John D. Pierce, of Ypsilanti.

(Continued.)

But it is one thing to adopt a system, and another and very different thing, to carry it into execution. The best laid schemes may fail for the want of skill in carrying them out.

At this period in our history there was one question pertaining to our Primary Schools of absorbing interest, the settlement of which must necessarily affect them for all time to come. That question gave to Gen. CRARY, our Representative, and myself much solicitude, for on its solution depended, in a great measure, the success or failure of our whole system. But it was a most difficult question to manage, because it depended upon the action of Congress. That body, at the time, seemed not to be very well disposed towards Michigan, on account of our southern

boundary trouble. Hitherto, on the admission of a new State, the sixteenth section had been donated to the township, in each and every case. But these sections had been so managed, in all the new States, by the townships, as to be of little worth to the cause of education. Many a section of great value was sold at an early day, and bid in by the settlers for a mere song. Besides, there was no equality in the system—one section might be of great value, another of little worth. I once sold one section for $31,000, while in the next township the reserved section might not have been worth as manny pennies. Hence it was deemed of essential importance to us that these sixteenth sections, reserved from sale, should be given in trust to the State, and not to the surveyed townships. How the uniform policy of Congress could be changed, was the problem to be solved. But it was accomplished in this wise: Gen. CRARY, our Representative, acted with the committee whose duty it was to draft the ordinance of admission. This work was assigned to him, and in drafting the ordinance, he so worded it that these school lands were really conveyed to the State, and it passed without question. The change in the form of the conveyance of these sections seemed not to have been noticed; had it been, as he subsequently told me, no doubt the common form would have been substituted, and the lands given to the townships. There was no deception about it—the ordinance spoke for itself, and yet its effect seems not to have been perceived. But as it was, it was all important to us as a State. It infused vigor into our new-born system, and life into our infant schools. Thus much was gained—we had secured a foundation on which to rear a superstructure, and materials with which to build.

When the system was once adopted, and the machinery in operation, it was easy to organize schools throughout the State. The apportionment to be derived from the income of the School Funds operated as a stimulus to all—to each and every School District. But here the greatest difficulty was to be met, and it is one not yet wholly surmounted: How and where is a full supply of competent teachers to be procured? After discussing the subject at full length, I proposed that a certain intermediate grade of institutions, between the Primary Schools and the Uni-

versity, should be used for qualifying teachers for their work, as well as that of preparing young men for the University course, and others for the ordinary business of life. These institutions were to be regarded as branches of the University. This the Constitution required, and it was a favorite scheme of Gen. CRARY. But it was attempting more at that time than the state of the country would warrant. Accordingly the amended Constitution of 1850 left the University free and independent of all other institutions, as it ought always to have been; and the Normal and Union Schools have taken their place, and are doing the work they were designed to accomplish. But these schools, at that early day, could not have been established, nor yet the system of County Superintendents adopted. The country was too new and too poor—houses were to be built, roads laid out and made passable, bridges and crossways to be constructed, mills and mill-dams to be erected, and farms to be laid out, cleared, fenced and plowed. Outside of Monroe and Detroit we had no cities and villages. True, we had a great many on paper, but they were yet to be built. So also churches and school-houses—they existed only on printed plats, like the blacksmith's shop. A traveler inquired for such a place—he was told he would find one at Marshall village. He went on and on, until, out of all patience, he asked a settler where he would find said shop. "Oh," said the man, "you are in the shop now, but the anvil is back seven miles on a stump." Considering the state of this whole western world at the time, the wonder is not that we did so little, but that we were able to do so much.

Soon after the adoption of our School system it was reviewed in the Michigan *Gazetteer*, and pronounced superior to that of any other State, and yet that it would be found in some measure defective, "not only in practice, but in principle." One defect was that it did not provide for the support of a school in every district throughout the year. To have done this at that time was simply an impossibility. Besides, five days in a week, for forty weeks, is as much as any school ever ought to be kept open in any one year. I think this is in accordance with the sentiments of all experienced teachers. To have proposed thus early in the settlement of the country, to levy a tax to keep the

schools open the year round, would have defeated the whole thing. Even up to 1850 we failed to procure the passage of a law for the establishment of free schools, even for three months. And then, the best we could do was to make it the duty of the Legislature to establish such schools after five years; and this was neglected for two years longer. The second defect referred to was in not providing for the appointment of County Superintendents, to be named by the State Superintendent. Such a proposition in those early days would have been as fatal as the other. The people were not prepared, nor then could they hardly afford, to be taxed 1,000 dollars, less or more, in every county, in addition to their other taxes, for a Superintendent. Township inspection, therefore, was our only resort—it was the best we could do.

In this connection allow me to suggest, that the question with the statesman is, not what I may like to do—what I may wish to accomplish—but how much can I accomplish? This includes an appreciation of all the circumstances with which he is surrounded. So with the teacher, when he enters the schoolroom; what he may *wish* to do is one thing, what he may be *able* to do is another and very different thing. He must examine his materials, measure and weigh them, before he can decide what and how much he can do. To rush ahead regardless of circumstances, and equally of consequences, is the peculiar character of your one-idea fanatical reformer—he can pull down and destroy, but he has no skill in construction. Such an one can never be a successful builder. He makes no account of the difficulties to be met, or the obstructions to be removed; hence failure is sure to be the result of all his labors. The saying is, "Be sure you're right, then go ahead." You point your boat in the right direction above Niagara for the opposite shore, but before reaching it you and your boat are at the foot of the falls.

While the sixteenth section in every surveyed township was reserved from sale and given to the State, in trust for the support of Primary Schools—equal to one thirty-sixth of the whole —seventy-five sections, equal to 48,000 acres, to be selected, most of it, from any part of the State, were given as a perpetual fund, for the establishment and support of a University. The same

amount was granted to all the other new States severally. But from some cause they have each and all failed to create any institution within their respective borders, of a marked character. They have no College, no University founded on this grant, and supported by its income, of any special note. It was hence reserved to Michigan, by means of like character and no more abundant, to rear up, within thirty years from its inception and the location of its site, an institution rivaling not only Yale and Harvard, but outstripping them both. This now is universally acknowledged. Men from the oldest institutions in the United States concede the great fact. The New York *Observer* says that the University of Michigan is a marvel. Thirty years ago the land—the forty acres that it now occupies—was an unfurrowed plain, whose soil the plow had never chafed, never disturbed—where, but as yesterday, the deer roamed free as air, the wolf howled, and the Indian pitched for the night and kindled his camp fires. You will find in all the history of the past nothing to compare with it in the rapidity of its development and growth.

I can, to a certain extent, unfold the reason and explain the mystery of it, if there be any. I believe, however, all the mystery pertaining to it is to be found in a right beginning and a steadfast adherence to the principles on which it started into being. When the matter of devising a plan for a University was committed to my hands, it caused me no small degree of solicitude. It was said no State institution of the kind has ever succeeded or can succeed. This was urged with great earnestness and with untiring zeal, until the question was finally settled. It was proposed to name the several private colleges that already existed, on paper, and others that were expected to come into being, "The University of Michigan," and distribute the income of the fund to them in proportion to their members. This, or something like it, was the plan, under whatever name or form it might have been presented at different times. This scheme I opposed with all the influence I could bring to bear against it. But it came within one vote of succeeding, and for being instrumental, as supposed, in defeating the measure in the House—it had passed the Senate—I was denounced, the following evening, by some of its warm friends, in no measured terms.–(*To be continued.*)

EDITOR'S DEPARTMENT.

IN the *Galaxy*, for May, RICHARD GRANT WHITE completes his series of articles on "Words and their Uses." Opinions will differ as to the merit of these papers. The style is so incisive, and opinions are expressed with so much independence, that to some the author may appear dogmatical, to others almost cynical. It appears to us that Mr. WHITE has done his own thinking, has thought to some purpose, and is not afraid to declare his convictions. He has not adopted conclusions at second hand in matters upon which his own reason could be directly employed. Of one thing we are fully convinced: If all men would thus examine for themselves the topics Mr. WHITE has discussed, instead of bowing and scraping to Authority, many of the absurdities which infest our "standard" grammars would be exposed, never again to needlessly torment unsuspecting children.

Mr. WHITE has been asked to write a series of dictionaries and grammars, embodying his own ideas of what such books ought to be. Listen to his reasons for declining. "Now, were such a grammar and such a dictionary published, as some readers of these articles would like to have, and should they be received with favor, they would at once provoke the hostility—cool, vigilant, business-like—of men who have many hundreds of thousands of dollars invested in books—in whole systems of books—planned upon radically different principles. It is, and always will be, necessary to fight these men with their own weapons, until some man on horseback comes and purges the commonweal. And even then there is the fight in newspapers, by articles, advertisements, and opinions from eminent gentlemen. I have been behind the scenes enough to know thoroughly how all this business is managed. Why, even already the priests of the present idols have begun to denounce a certain pestilent fellow, and their craftsmen to cry, 'Great is Diana of the Ephesians!'"

The late election of County Superintendents was influenced in no slight degree by a decided reactionary movement. The officers elected two years ago were, almost to a man, thoroughly competent and progressive. Many of them were practical teachers, who well knew to what a low condition our common schools had been reduced, in consequence of the multitudes of incompetent teachers licensed by incompetent inspectors. The remedy for nearly all the evils that affected the schools consisted in weeding out the worthless teachers by a searching examination. In this matter the Superintendents acted with the greatest deliberation and prudence. At their first convention, at Jackson, there was a full discussion of this very matter, and it was resolved to proceed cautiously, yet decisively—not to tighten the reins too suddenly, and thus close many schools for want of teachers, but to draw a line to which all must come who wished to teach. The purpose was to inaugurate the new system with as little friction as possible, and gradually to supply the schools with competent teachers. Probably there was not a single Superintendent who acted in this matter up to his full conception of duty, for to have done this would have been to close half the schools, and to have made the repeal of the law inevitable.

What has been the result of this mild and conciliatory course? Why, SUSAN JONES failed to receive a certificate, whereupon the JONESES and their connections, the SMITHS and the TOMPKINSES, vow vengeance upon the Superintendent at the next election. Probably there is not an instance in which this feeling did not influence, to some extent, the late elections. In some cases it defeated the election of the most competent and useful Superintendents who received a renomination. In other cases it went further back and defeated their renomination. On the whole, this influence was so unscrupulous and withal so intense, that it has put the whole system in serious peril. In many cases these disappointed candidates will apply to the new incumbents for license; and as the election of the latter was probably owing, to some extent, to previous rigor, there will be a tendency, to say the least, toward relaxing the previous standard. And thus there is a danger of relapsing into the old order of things.

PRACTICAL DEPARTMENT.

PLAN FOR A TEACHERS' INSTITUTE.—We submit the following programme of exercises for a five days' Institute.

MONDAY.

11.00	A. M.	Organization.
1.40 to 2.00	P. M.	Practical Arithmetic. (Lecture.)
2.00 to 2.30	"	Grammar. (Lecture.)
2.30 to 3.00	"	Grammar. (Recitation.)
3.00 to 3.15	"	Recess.
3.15 to 4.00	"	School Organization. (Lecture.)
4.00 to 4.30	"	General Criticisms.

TUESDAY.

8.30 to 9.00	A. M.	Opening Exercises. Miscellaneous Business.
9.00 to 9.45	"	Reproduction of last Lecture.
9.45 to 10.00	"	Recess.
10.00 to 10.30	"	Geography. (Lecture.)
10.30 to 11.00	"	Geography. (Recitation.)
11.00 to 11.15	"	Recess.
11.15 to 12.00	"	Practical Arithmetic. (Recitation.)
1.30 to 2.00	P. M.	Reading. (Lecture.)
2.00 to 2.30	"	Reading. (Recitation.)
2.30 to 2.45	"	Recess.
2.45 to 3.15	"	Spelling.
3.15 to 4.00	"	School Government. (Lecture.)
4.00 to 4.30	"	General Criticisms.

WEDNESDAY.

8.30 to 9.00	A. M.	Opening Exercises. Miscellaneous Business.
9.00 to 9.45	"	Reproduction of last Lecture.
9.45 to 10.00	"	Recess.
10.00 to 10.30	"	Practical Arithmetic. (Lecture.)
10.30 to 11.00	"	Mental Arithmetic. (Lecture.)
11.00 to 11.15	"	Recess.
11.15 to 12.00	"	Geography. (Recitation.)
1.30 to 2.00	P. M.	Reading. (Recitation.)
2.00 to 2.45	"	Grammar. (Recitation.)
2.45 to 3.00	"	Recess.
3.00 to 3.45	"	School Government. (Lecture.)
3.45 to 4.00	"	Recess.
4.00 to 4.30	"	General Criticisms.

THURSDAY.

8.30 to 9.00	A. M.	Opening Exercises. Miscellaneous Business.
9.00 to 9.45	"	Reproduction of last Lecture.
9.45 to 10.00	"	Recess.
10.00 to 10.45	"	Practical Arithmetic. (Recitation.)
10.45 to 11.00	"	Recess.
11.00 to 11.30	"	Mental Arithmetic. (Recitation.)
11.30 to 12.00	"	Spelling.
1.30 to 2.00	P. M.	Practical Arithmetic. (Lecture.)
2.00 to 2.45	"	Grammar. (Recitation.)
2.45 to 3.00	"	Recess.
3.00 to 3.45	"	School Punishments. (Lecture.)
3.45 to 4.00	"	Recess.
4.00 to 4.30	"	General Criticisms.

FRIDAY.

8.30 to 9.00	A. M.	Opening Exercises. Miscellaneous business.
9.00 to 9.45	"	Reproduction of last Lecture.
9.45 to 10.00	"	Recess.
10.00 to 10.45	"	Practical Arithmetic. (Recitation.)
10.45 to 11.00	"	Recess.
11.00 to 11.30	"	Geography. (Recitation.)
11.30 to 12.00	"	Reading. (Recitation.)
1.30 to 2.00	"	Criticisms and Remarks by Superintendent.
2.00 to ——	"	Miscellaneous Business.

This programme is based upon the following principles:

1. *The chief thing to be taught is* METHOD. The attempt to teach the *matter* of Grammar, Arithmetic, Geography, &c., must necessarily result in a failure. It is like learning Latin "in six easy lessons." It must be assumed that teachers have the requisite knowledge of the branches to be taught.

2. *Teachers must be* TRAINED *in Method.* The teaching of Method by lecture is not enough. There should be as much of actual practice as possible. To this end, after the lecturer has shown how a certain thing should be done, the members of the Institute should be made to do it. Lecturing is one of the poorest methods of teaching, unless the hearer is made to *reproduce the lecture. Trained* teachers can be produced only by reducing precept to practice, so that the *habit of doing* shall be confirmed.

The following method of carrying out the above principles is suggested. The person who conducts the Institute should choose such assistants as he needs, with special reference to the work each is to do. Each lecturer should not only be assigned definite topics, but the *kind* of instruction should be designated. For instance, as it will be impossible to pass over the whole subject of Grammar, it may seem most economical for the lecturer to unfold a method of analysis and parsing. In Arithmetic he may develop the method adapted to children, and also the one adapted to adults. In Geography, a general method may be illustrated by teaching a given lesson. *There should be such a concentration of effort as shall produce a distinct impression.*

Practical Arithmetic is the first topic on our programme. The lecturer, having previously determined just what he is to do in this half hour, proceeds to his task. Suppose he wishes to illustrate the method of teaching by *principle*. He first gives a demonstration of (say) subtraction, just as he would require his pupils to recite it. This is repeated till the members of the Institute have either learned it, or have taken it down on paper to be subsequently learned. In this way a lesson has been given which is the basis of subsequent *training*. At 11.15, on Tuesday, there is a *recitation* in Practical Arithmetic. Sufficient time has been allowed for learning the lesson given on Monday, and now it is to be *reproduced*. If there are one hundred teachers present, and four instructors, let the Institute be divided into four sections, each in charge of one of the instructors. When a system of signals for rising, marching, &c., has been given by the person in charge, let each section retire to a room for recitation. This separation will be practicable in most cases, as Institutes are usually held in schoolhouses. A member of each section, previously designated, is placed in charge of the class, and the recitation proceeds *under the supervision of a lecturer*. At the appointed time the sections return to the lecture hall. The same method is pursued with Grammar, except that no time is allowed for preparing the lesson, it being presumed that all are able to parse. If the Institute is small, or there is but one lecturer, there need be no division into sections; but whenever it is practicable this course is recommended, because it furnishes occasion for more actual practice in teaching, and for exhibiting the mode of bringing out and dismissing classes.

During the lecture on school organization, the pupils should be required to take notes, and on Tuesday morning they should be called on, individually, to reproduce the lecture in the order of its delivery. The last exercise of each day is a public criticism, the object of which should be to correct errors in method.

Finally, the object of the scheme is to exhibit a *model school*. To carry out the plan successfully, will require previous preparation, professional skill, and a steady adherence to the programme. There is no more complication than in a well ordered school, and only those qualifications are needed by the person in charge which every successful teacher must have.

ERRATUM.—On page 111 (April number of the TEACHER), in equation (*A*), for $qa+q$ read $qd+q$.

Book Notices.

THE LAW OF LOVE AND LOVE AS A LAW. By MARK HOPKINS, D. D., LL. D. New York: *Charles Scribner & Co.* 1869.

The sub-title of this work well expresses its nature, a treatise on "Moral Science, Theoretical and Practical." The author has already won a reputation by his "Lectures on Moral Science," published five years since. In his Introduction the view that right and wrong are ultimate principles, is discussed and rejected. Dr. HOPKINS holds that these are based upon the relation of choices to ends. The main body of the work is divided into two parts, the "Law of Love" and "Love as a Law." The former constitutes "Theoretical," the latter "Practical" morals. In the Law of Love, after a clear discussion of the nature of law, the author proceeds to consider the characteristics of obligation. These he finds to be Freedom, End, a Good, Personality. Freedom is viewed as involving spontaneity, and Personality as implying Reason and Free Will. In the remainder the reconciliation of systems and the relations of sensibility to the moral nature are discussed. The second comprises a classification of personal duties under three divisions: 1. The Securing of our Rights. 2. The Supply of our Wants. 3. The Perfecting of our Powers. These duties we owe to ourselves in order that we may do the most good to others. Our duties to our fellow-men refer to rights as of Life and Liberty, Property, Reputation, Truth, Benevolence, Perfecting and Directing the Powers of Others. From certain special relations arise duties in relation to the Family, Government, Relation of the Sexes, Marriage, Parents and Children, etc. The work closes with a consideration of Duties to God. How full and exhaustive it is, our statement of its contents will show, and the simple clear style commend to the perusal of every one interested in its subject.

THUNDER AND LIGHTNING. By W. DE FONVIELLE. New York: *C. Scribner & Co.* 1869.

THE WONDERS OF OPTICS. By F. MARION. Do. Do.

These volumes form part of a series translated from the French, issued by Scribner & Co., under the title of an "Illustrated Library of Wonders." Being intended for popular use, they are not, of course, elaborately scientific in treatment, and the "Thunder and Lightning" borders on the sensational, at least it contains some very startling illustrations. The "Wonders of Optics" is a very satisfactory work, giving a clear explanation of the leading optical phenomena, and in the chapter on Natural Magic presenting information in regard to optical illusions of much interest. The books are well got up, and the illustrations are excellent in execution.

A MANUAL OF GENERAL HISTORY. By JOHN J. ANDERSON, A. M. New York: *Clark & Maynard.* 1869. pp. 401.

Mr. ANDERSON has already demonstrated his ability to write historical text-books, and this, his latest work, fully sustains the reputation he has already won. Our judgment of books should be based upon their intended scope or design. In a volume of 400 pages, designed to set forth the great facts of general history, we need not look for detail in any department. Are the great epochs so clearly defined as to leave on the mind of the pupil a connected no.ion of the onward progress of mankind through the ages? In the earlier stages of historical study, to present minutæ, is to introduce confusion, and thus to defeat the end of elementary instruction. The critic of the *Nation* has so far misunderstood the purpose of this book, that it may not be amiss to consider the points which he chooses to condemn.

The critic condemns the *division* of the subject, because, as he says, it is "by countries;" while he commends the *subdivision*, as being "by periods." The reverse, however, is the case. The general division of the work is by periods; the subdivision by countries, as being best suited to an elementary work—a fact substantiated by the experience of every good *teacher*.

He finds fault with the omission of a minute account of *Babylonian civilization and antiquities*, of the peculiar institutions of the Spartans, of *Grecian Mythology*, of *Greek literature*, and of TURKAN *civilization*. Such treatment did not come at all within the scope of the author's design; neither did he deem it proper in this brief elementary manual to insert a detailed account of "Sanhedrim, Sadducees, Pharisees, Talmud, the Rabbis, etc.," for the omission of which his learned critic takes him to task.

Another fault found is the "pale delineation" of Mohammedanism, the critic expecting doubtless to find a complete synopsis of the Koran. He is greatly shocked at the omission of a full exposition of the "cardinal principles of the Reformation." From what stand point, pray? From the Catholic or Protestant? It would have been difficult to accommodate both sides; while the book was designed for all classes of schools. All that need be said with reference to his various charges of *omission* or of the insertion of unnecessary detail, is, that the *principle of selection applied* by the author is considerably different from that which he (the critic) would have applied. He has failed to perceive (or resolved not to perceive) the scope and object of the work, and has greatly misrepresented it.

He makes the most of a very few and very trifling inaccuracies in dates, having probably compared the statements of the work with a minute chronological table. All, however, that he has raked and scraped out with apparently the utmost diligence, amount to three in the Roman history—and three in the United States history, with two or three other inaccuracies, certainly pardonable in a first edition; especially when it is manifest that the critic himself can blunder, as he has with respect to "McClellan's seven days battles," which he says took place June 26th to July 2d; whereas the official report says June 25th to July 1st, and so says the General History. Such are the small points picked out to pronounce a wholesale condemnation of this work.

He absurdly denies that Palestine "was situated between the Mediterranean, and the valley of the Jordan," while Dr. WILLIAM SMITH says (Dict. Bible) "it is hemmed in between the Mediterranean sea on the one hand, and the enormous trench of the Jordan valley on the other." Of course, anciently the name was variously applied to regions of different extent. He says the Messenian wars are reduced from *three* to *two*; but the "Third Messenian war" (so called) was simply a revolt of the Spartan helots, (some of Messenian origin), more than two centuries after their Messenian ancestors had been subdued and expelled—an incident in Spartan history which few historians dignify with the name of "Messenian war."

The critic expresses surprise, also, that *Nimrod* is referred to as the *mighty* hunter, identical with the fabled Orion, of the constellation; but Dr. WILLIAM SMITH says (Dict. Bible, Art. Orion), "The 'giant' of Oriental Astronomy was Nimrod the Mighty Hunter." He also says, "The constellation known to the Hebrews by the name *Ceril* is the same as that which the Greeks called *Orion*, and the Arabs the Giant." And again, "In the *Chronicon Paschale*, Nimrod is said to have been a giant, the founder of Babylon, who, the Persians say, was deified and placed among the stars of Heaven, whom they call *Orion*."

SELECT ORATIONS OF CICERO. With Explanatory Notes. By GEORGE STEWART, A. M. Philadelphia: *Eldridge & Brother.*

This is the third volume of "CHASE and STEWART'S Classical Series." These editions are noticeable for critical editorship and for beauty of mechanical execution unsurpassed. The Notes, grammatical and critical, are real helps to the student, anxious to enter into the very spirit of these grand orations. References are made to HARKNESS' Latin Grammar, a feature which will commend this edition to pupils in Michigan where Prof. HARKNESS' text books are in such general use.

BIOGRAPHICAL SKETCHES. By HARRIET MARTINEAU. New York: *Leypoldt & Holt.* 1869. pp. 458.

This volume contains sketches of above forty distinguished persons who have died since 1852. Miss MARTINEAU is a skillful delineator of character, having the rare power to seize just those elements which are necessary to present a clearly cut outline. Still, these sketches are more than mere outlines. When we have read them we feel that we *know* the characters described. Among the noticeable personages thus brought to our view, we may mention, WILSON (Kit North), LOCKHART, CHARLOTTE BRONTE, DE QUINCY, MACAULAY, HUMBOLDT, Archbishop WHATELY, Lord RAGLAN, Father MATHEW, Lady BYRON, Lord BROUGHAM.

The *"Lady's Friend"* for May gives a steel plate of the "First Visit" of a youth to a miss of fourteen. Both look green and seem to feel awkward. The usual reading matter, patterns, and other things, looked for by lady readers, will be found in full supply here.

Our Young Folks, The Schoolmate, The Schoolday Visitor, Little Chief, and *Nursery*, come with their stores of good things for even the older ones.

EDUCATIONAL INTELLIGENCE.

MATTERS AT HOME.

WE give below the text of two of the educational bills passed at the last session of the Legislature. The remainder will follow in the June number of the TEACHER.

A BILL to amend Section 65, of Chapter 58, of Revised Statutes of 1846, entitled "of Primary Schools," being Section 2308, of the Compiled Laws.

SECTION 1. *The People of the State of Michigan enact*, That section sixty-five, of chapter fifty-eight, of the revised statutes of 1846, being section 2308, of the compiled laws, be amended so as to read as follows:

(2308) SEC. 65. The said District Board shall have the care and custody of the school house and other property of the district, except so far as the same shall be especially confided to the custody of the director, including all books purchased for the use of the pupils admitted to the school free of charge, and may permit the school house to be opened for public meetings; *provided*, a majority of the legal voters of said school district present and voting at any annual meeting or special meeting called for that purpose, shall so determine.

A BILL to provide for Free Schools, and to amend Sections 2264, 2267, 2272, 2275, 2301, 2323, 2350, and 2384, of the Compiled Laws, being Sections 21, 24, 29, 32, 58, 80 and 107, of Chapter 78, of the Revised Statutes, of 1846, and Section one of an act entitled "An Act to amend the Revised Statutes relative to the Support of Primary Schools, and the Custody of the Township Libraries," approved April 2, 1850, and to repeal Sections 2276, 2277, 2278, 2283, 2285, 2286, 2287, 2288, 2289, 2290 and 2381, of Compiled Laws.

SEC. 1. *The People of the State of Michigan enact*, That sections 2264, 2267, 2272, 2275, 2301, 2323, 2350 and 2384, of the compiled laws, being sections 21, 24, 29, 32, 58, 80 and 107, of chapter 78 of the revised statutes of 1846, and section one, of an act entitled "An act to amend the revised statutes relative to the support of Primary Schools, and the custody of township libraries," approved April 2d, 1850, be and the same are hereby amended so as to read as follows:

(2264) SEC. 21. The said qualified voters shall also have power by the vote of a majority present and voting at any such meeting, to direct the purchasing or leasing a site determined upon under the preceding sections nineteen or twenty, and the building, hiring or purchasing of a schoolhouse, or the enlarging of a site previously established.

(2267) SEC. 24. They shall also determine, at such annual meeting, the length of time a school shall be taught in their district during the ensuing year; which shall not be less than nine months in districts having eight hundred children over 5 and under 20 years of age, and not less than five months in districts having from thirty to eight hundred children of like ages, nor less than three months in all other districts, on pain of forfeiture of their share of the two mill tax and primary school fund; and whether by male or female teachers, or both. And it shall be the duty of the district board to estimate the amount necessary to be raised, in addition to other school funds, for the entire support of such school, including fuel and other incidental expenses, and previous to the second Monday in October make a written report of the amount so determined, to the supervisor of the township in which any part of said district may be situated; and the same shall be levied, collected and returned in the same manner as township taxes. A school month within the meaning of this act shall consist of four weeks, of five days in each week, unless otherwise specified in the teacher's contract.

(2272) SEC. 29. The moderator shall have power, and it shall be his duty to preside at all meetings of the district, to countersign all orders upon the assessor for moneys to be disbursed by the district, and all warrants of the director upon the township treasurer for moneys raised for district purposes, or apportioned to the district by the township clerk; but if the moderator shall be absent from any district meeting, the qualified voters present may elect a suitable person to preside at the meeting.

(2275) SEC. 32. The assessor shall pay all orders of the director, countersigned by the moderator, out of any moneys in his hands belonging to the fund upon which such orders may be drawn.

(2301) SEC. 58. Said Board may admit to the district school non-resident pupils, and may determine the rates of tuition of such pupils, and collect the same; and they may authorize or order the suspension or expulsion from the school, whenever, in their judgment, the interests of the school demand it, of any pupil guilty of gross misdemeanor or persistent disobedience.

(2323) SEC. 80. The Board of Inspectors, before making their annual report to the county clerk, shall examine the record of teachers to whom certificates have been given by them, and if in any school district having thirty or more children over five and under twenty years of age, a school shall not have been taught for five months, and in any district having eight hundred or more children of like ages, for nine months, and in any other district three months, during the preceding school year, by a qualified teacher, no part of the public money shall be distributed to such district, although the report from such district shall set forth that a school has been so taught; and it shall be the duty of the Board to certify the facts in relation to any such district in the r reports to the county clerk.

(2350) SEC. 107. The Supervisor shall also assess upon the taxable property of his township, two mills upon each dollar of the valuation thereof, in each year, and report the aggregate valuation of each district to the township clerk; and so much of the said tax as the qualified electors of said township shall decide, by a majority vote, at the annual township meeting, shall be applied to the purchase of books for the district or town-

ship libraries, according to the provisions of law, and the remainder shall be apportioned by the township clerk to the districts in which it was raised, for the support of schools therein; and all moneys collected by virtue of this act during the year, on any property not included in any organized district, or in districts not having, during the previous school year, three months school in districts having less than thirty children, or five months school in districts having thirty and less than eight hundred, or nine months school in districts having eight hundred or more children, as shown by the last school census, shall be apportioned to the several other school districts of said township, in the same manner as the primary school moneys are now apportioned. All moneys accruing from the two-mill tax in any township, before any district shall have a legal school therein, shall belong to the districts in which it was raised, when they shall severally have had a three months' school by a qualified teacher.

(2384) SEC. 1. If any supervisor shall willfully neglect or refuse to assess any taxes provided for by law, for school purposes, the same shall be assessed in the succeeding year; and the supervisor so willfully neglecting or refusing to assess, shall be liable to any district for any damage occasioned thereby, to be recovered by the assessor, in the name of the district, in an action of debt, or on the case.

SEC. 2. Sections 2276, 2277, 2278, 2283, 2285, 2286, 2287, 2288, 2289, 2290 and 2381 are hereby repealed.

Approved April 3, 1869.

ALLEGAN COUNTY.

An Institute attended by 140 teachers was held at Allegan under the management of Supt. BALLOU, March 29th to April 2d. Instruction was given by the Superintendent, Prof. W. H. PAYNE, Prof. H. L. WAYLAND, Prof. A. A. GRIFFITH, Prof. STONE and Prof. BARNARD. Evening lectures were delivered by Profs. PAYNE, WAYLAND and GRIFFITH. At the close of the institute resolutions were adopted endorsing institutes as "sources of great practical good;" thanking the lecturers; approving the County Superintendency, commending the services of Supt. BALLOU; urging the need of supervising the reading matter of pupils; endorsing uniformity of text-books throughout the State; commending the MICHIGAN TEACHER to the coöperation and support of every teacher in Michigan; thanking the citizens of Allegan and the church societies for their kindness. Profs. GRIFFITH and BARNARD made remarks upon opening school with devotional exercises, and censuring the School Board of Bay City for interfering with Prof. CURTIS in this respect.

MACOMB COUNTY.

Supt. D B. BRIGGS appointed examinations at

Armada Village,	Monday,	April	12, 1869
Memphis,	Wednesday,	"	14, "
Baltimore Station,	Friday,	"	16, "
Mt. Clemens,	Monday,	"	19, "
Utica,	Wednesday,	"	21, "
Romeo,	Friday,	"	23, "

COUNTY SCHOOL SUPERINTENDENTS, MICHIGAN, 1869-1870.

COUNTIES.	NAMES.	POST OFFICE.
Allegan,	Patroclus A. Latta,	Otsego.
Barry,	John H. Palmer,	Nashville.
Bay,	Archibald L. Cumming,	Portsmouth.
Benzie,	Alpheus E. Walker,	Platt.
Berrien,	Henry A. Ford,	Niles.
Branch,	A. A. Luce,	Gilead.
Calhoun,	Bela Fancher,	Marshall.
Cass,	Irving Clendenen,	Dowagiac.
Clinton,	Rev. E. Mudge,	Maple Rapids.
Eaton,	Calvin G. Townsend,	Vermontville.
Genesee,	Samuel E. Perry,	Flint.
Grand Traverse,	Joseph B. Haviland,	Whitewater.
Gratiot,	Giles T. Brown,	Ithaca.
Hillsdale,	Stephen N. Betts,	Hillsdale.
Houghton,	William P. Sidman,	Houghton.
Huron,	Chauncey Chapman,	Port Austin.
Ingham,	George W. Brown,	Williamston.
Ionia,	E. V. W. Brokaw,	Ionia.
Isabella,	John Young,	Salt River.
Jackson,	W. Irving Bennett,	Jackson.
Kalamazoo,	William T. Smith,	Schoolcraft.
Kent,	Henry B. Fallas,	Fallassburg.
Keweenaw,	Edward Seymour,	Copper Falls Mine.
Lapeer,	James H. Vincent,	Lapeer.
Leelanaw,	Stephen J. Hutchinson,	Northport.
Lenawee,	Christopher T. Bateman,	Adrian.
Livingston,	William A. Sprout,	Pinckney.
Macomb,	Daniel B. Briggs,	Romeo.
Manistee,	Charles Hurd,	Manistee.
Marquette,	Charles C. Yemans,	Negaunee.
Mason,	Henry H. Hall,	Colfax.
Mecosta,	Michael Brown,	Big Rapids.
Midland,	John R. Jones,	Midland.
Monroe,	Elem Willard,	Monroe.
Montcalm,	James F. Covel,	Stanton.
Muskegon,	George C. Rice,	Muskegon.
Newaygo,	Rev. Cyrus Alton,	Newaygo.
Oakland,	P. M. Parker,	Pontiac.
Oceana,	Charles A. Darling,	Hart.
Ottawa,	Augustus W. Taylor,	Nunica.
Saginaw,	Rev. J. S. Goodman,	East Saginaw.
Sanilac,	Charles S. Nims,	Lexington.
Shiawassee,	Joseph W. Manning,	Pittsburg.
St. Clair,	John C. Clarke,	St. Clair.
St. Joseph,	Luther B. Antisdale,	Centreville.
Tuscola,	Samuel N. Hill,	Vassar.
Van Buren,	Rev. Edward Cleveland,	Lawrence.
Washtenaw,	George S. Wheeler,	Ann Arbor.
Wayne,	Lester R. Brown,	Raisinville.

BAY CITY.—Supt. SCOVILLE is remodelling the schools. Prof. MORLEY, of Auburn, N. Y., has been engaged as Principal of the High School, and Prof. N. R. DWELLY of the Second Ward. In addition to these there are 18 female teachers employed. The Superintendent receives a salary of $2,000.

JACKSON.—The new school building in District No. 17, east side of the river in this city, is at last completed, and school commences in it to-day. It is built of the best material and in modern style, except that the roof is so close to the upper windows that it has the appearance of a man with its hat driven down over his eyes. There are ten rooms in the building, all arranged with elegant seats and desks, and capable of seating something over 500 scholars.—*Exchange.*

LANSING.—The following appointments have been made by the School Board. Second Ward School—Miss JENISON in place of Miss BUCKLAND, resigned. Third Ward—Miss BARNES in place of Miss JENISON, transferred Fourth Ward—Miss CASE in place of Miss FINCH, resigned. High School—Miss KATE BREARLEY in place of Miss NICHOLS. Grammar School—Miss MARY E. BAKER in place of Mrs. L. PIERSON, and Miss WOODRUFF, the two departments being consolidated.

The time of school is fixed at six hours, 3½ in forenoon with ½ hour recess; 2½ in afternoon with ½ hour recess. School hours may be reduced ½ hour at discretion of teacher.

DOWAGIAC.—Prof. D. E. THOMAS handed in his resignation at the close of last term. Nearly 100 students of the High and Grammar Schools presented a petition to the Board, asking them not to accept it. The graduating exercises took place Friday, April 2d, and passed off very pleasantly. Prof. D. P. SIMMONS, of St. Joseph, succeeds Prof. THOMAS. All the other teachers, except one, followed the example of Prof. THOMAS. Miss HEBRON takes the place of Miss L. A. WHITE in the High School, and Miss HUNSIKER of Miss ANNA W. TUPPER in the Grammar School. The Second Intermediate is taught by Mr. J. P. BORTON.

PARMA.—We are indebted to Prof. C. J. THORPE for the following items respecting the Union School: Number of pupils according to census, 356 number of pupils in attendance this year, 275; number of pupils daily average, 200; percentage of daily attendance, 72; percentage of daily absence, 28; percentage of tardiness, 11.33.

Four teachers are constantly employed, with a fifth a portion of the year. The new school building and surroundings are estimated at a valuation of $20,000. Plans are now maturing for improving the grounds to the extent of several hundreds of dollars more.

Two public exhibitions were given by the High Schools at the close of the winter term. The net proceeds, $120, were devoted to the purchase of an organ.

CASSOPOLIS.—At the recent close of the winter term of the Union School Miss MATTIE ROGERS was presented with a beautiful watch, as a mark of the sympathy of her pupils with her in her lameness.

PAW PAW.—Through the kindness of Prof. H. D. HARROWER we are enabled to present the following report of Paw Paw Union School for the half term ending

	Oct. 30.	Dec. 24.	Feb. 12.
Whole number enrolled,	316	331	350
Average number enrolled,	258.8	272.9	318.4
Average attendance,	216.4	245 3	296.4
Percentage of Attendance,	83.6	89.9	93.1
Number of days absence,	1698	1104	660
Average absence,	42.4	27.6	22
Cases of tardiness,	984	401	174
Average tardiness,	24.6	10	5.8

CHELSEA.—Miss LIBBIE CONGDON. a pupil of the State Normal School, succeeds Mrs. BURKED, now teaching at Lawrence, as Preceptress. The pupils gave a very successful exhibition at the close of the winter term, realizing over $80 towards the purchase of an organ.

FLINT.—The Union High School opened its spring term with 87 pupils in the High School department, and 98 in the Grammar School. Some changes of teachers have taken place, Miss C. BASSETT being appointed Preceptress to succeed Miss NICHOLS, who has resigned.

HUDSON.—Prof. REYNOLDS, a graduate of Hillsdale College, has taken charge of the Union School.

MATTERS ABROAD.

FOREIGN.

FRANCE.—A recent number of the *Avenir National* contains a letter from a school inspector which is significant as showing the position of French teachers. This inspector, who officiates in the department of the Loire, forbids his teachers to be active in election matters without first consulting him. They should, however, not stand aloof from politics but in these matters obediently follow the directions of their inspector, who, of course, is enlightened by the neighboring prefect, as this latter is from Paris. In conclusion he remarks that it is a very evil thing for a teacher to read any other than the official paper of the empire.

GERMANY.—The Victoria Lyceum for ladies was opened in Berlin, January 11th. Its purpose is to give those ladies who have completed the ordinary school course an opportunity to continue their studies.

AUSTRIA.—The new Common School Law is creating considerable stir in the priesthood. The Primate of Pesth has issued a Pastoral Letter, condemning it and urging the clergy to watch over "catholic science," and the schools or Peter's little boat will assuredly sink. In Hungary the Prince Primate SIMOR has published a Pastoral, taking the field against unsectarian schools, as exceedingly detrimental to the true faith. He remarks that "a catholic religious education can only be given in a catholic common school, standing in immediate connection with the church, and the clergy have an indestructible right to the general direction of school affairs." The clergy are exhorted to agitate against the law and to preach from the altar against the establishment of unsectarian schools.

The Michigan Teacher.

Vol. IV.—YPSILANTI, JUNE, 1869.—No. 6.

Does the Earth Move on its Axis?

(Continued from the May Number.)

THE revolution of the earth toward the east would necessitate a current of air toward the west. On the supposition that the outer spaces are filled with ether, the outermost film of air must be retarded by the resistance of the ether, the next stratum by the resistance of the first, then the third, until the whole atmosphere and the water of the ocean must acquire an apparent motion toward the west, while the solid substance revolves toward the east. It has been asserted that the existence and constancy of the trade winds, so much boasted of by modern philosophers as an evidence of the revolution of the earth, are owing to this retardation of the strata of air. But the nature of the winds is so complicated, and their phenomena are so varied, that as yet no established law has been discovered, proving a uniform westward flow. Certainly the cause of the trade winds is in considerable doubt, granting their existence and uniformity. It is as plausible to assume that they have their origin, like all other winds, in the difference of temperature of different surfaces of the earth. Further, the prevailing winds of the temperate zones are west south-westerly, when, according to the theory of the revolution of the earth the east winds should prevail.

If, however, there be no ether, still the atmosphere cannot partake in the revolution. Philosophers say that it does, and

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explain it on the laws of imparted motion. But the laws of imparted motion cannot apply to those substances in which there is no adhesion in their parts, like the atmosphere. The stratum next the earth, should it be hurried along by imparted motion, still could not impart its motion to the next, nor it to the next. The upper strata would hence remain stationary or would stream toward the west with a velocity greater than ten times the rapidity of the most fearful hurricane.

The remainder of Dr. SCHŒPFFER's lecture is taken up with a demonstration of the impossibility of the earth's revolution about the sun. He makes the following points:

1. It is a principle (for which, however, he gives no authority), that every body, in process of revolution, receives by the direction of its revolution, a motion of progression, and that by its progression it has its revolution predetermined. Hence, if the earth moves toward the east in revolution, it must move toward the east round the sun. These two motions must always harmonize. If the earth moves toward the east in its orbit from June to September, and also revolves on its axis in the same direction during that time, it must move in an opposite direction, *i. e.* from east toward the west, in passing through its orbit from September to June. Hence during one-half of the year it either violates the above principle, or the force of gravity, instead of acting toward the sun, must act during one-half the year in an opposite direction.

2. The earth coursing round the sun, held in its place by the attraction of the sun, would be like the moon performing its orbit round the earth, or like a ball at the end of a string, whirled about the hand, and would obey the same laws and have the same motions. But the moon always presents the same side to the earth, and the ball the same side to the hand; hence the earth would ever present the same side to the sun, which we know is not the fact.

3. If the earth went with the velocity assumed round the sun, then the atmosphere would assume the shape of a long tail, following the earth as we see in comets.

4. If the earth is held in its course by the sun, then the force of gravity of the earth must be toward that point on its surface,

perpendicular to the sun, and all loose substances must press toward that point, just as the center of gravity evidently lies in that side of the moon toward us. This, according to observations, is not the case, but the center of gravity of the earth is in the center of bulk of the same, and is therefore only dependent on the earth, and is not influenced by any external force. Hence the earth is not held in its place by the sun, since this powerful attraction would change the center of gravity of the earth.

5. While it is not intended to deny the attraction of the moon and also of the sun on the earth, it still is claimed that it is not sufficiently strong to produce any effect on the solid parts of the earth. Its effect, seen only in the liquid parts of the earth, cannot be strong enough to hold the earth in its orbit. Such a force would have long ago withdrawn the atmosphere entirely from the earth, just as the earth would soon draw to itself every atmosphere arising on the moon.

6. This view of the motions of the heavenly bodies necessitates no change in the modes of astronomical calculations, as we shall only be obliged to regard as real those motions which we have hitherto regarded as apparent. This is TYCHO DE BRAHE'S system. Dr. SCHŒPFFER goes into a lengthy account and illustration of this system.

7. But we must relinquish the opinion that the fixed-stars are suns, and that the planets are bodies like our earth, for the calculations of their weight and magnitude are made on principles that are wrong. The weight of the sun, for example, has been calculated according to the force of attraction which it exerted on the earth. But now the sun being no longer the guiding star, but being chained to the earth by the attraction of the latter, that calculation has of course been wrong. Other calculations, based on similar wrong assumptions, have been made.

8. Probably the sun is no larger than it appears. The laws of diminution by distance do not apply, except in our atmosphere, and even in our atmosphere they vary with the varying amount of vapor and other obstructions to vision. The lecturer knows by experience that the theory of the optic angles is not correct throughout, but that the purity of the atmosphere must be taken into account.

9. A pound on the earth would weigh 27 pounds on the sun. Then the sun is 27 times denser, but it was found that, in order to be as large as was calculated in other ways, it would have to be only one-fourth as dense. This contradiction is owing to the assumption of false principles.

10. If the earth revolved from west to east on its axis, we should expect the length of the continents to be from west to east, instead of north and south.

The fixed stars have been vastly miscalculated. The lecturer doubts their distances from the earth as taught by the popular theory. According to that theory the earth on the 21st of June is forty millions of miles (German) from the place it had on the 21st of December. Yet the fixed stars culminate with the same magnitude, seen through the same telescope, in the same direction, in the same point of the sky. Thus forty millions of miles are of no consequence! This difficulty is obviated when we regard the earth stationary.

The lecturer also denies the habitability of the planets, the possibility of their possessing atmospheres, and all similarity to the earth in respect to surface, and endorses the Mosaic account of creation as in literal accordance with truth.

In a subsequent paper we may review these arguments against the revolution of the earth. For the present it is enough to know that a man who holds a high position as teacher of geography arrays himself against the COPERNICAN system, and boldly denies the very facts by which we had supposed its truthfulness was proved. It will cause scientific men to re-examine the old landmarks, and to fix firmer than ever the COPERNICAN system, or to substitute for it the true theory of our solar system.

N. H. W.

ORAL INSTRUCTION.

BY MISS S. C. STERLING.

THE LADY BIRD. THIRD STEP.

Time occupied, 30 minutes. Average age of children, 8 years. Time attended School, 15 months.

THE teacher presents to each one of the class a lady bird, and says, "What are we going to talk about?" *Ch.* Lady birds. *T.* Some child may find a part. One finds the head. *T.* Can you tell me what shape the head is? *Ch.* Oval shape. What then can you say about the head? *Ch.* The head is *oval.* The teacher writes this statement upon the board, the children spelling the words as she writes. *T.* Now another child may find another part. The children find the body. She now questions them as to the shape of the body, and obtains from them the term *hemi-spherical,* which has been previously developed in lessons on form. *T.* Who now can make a statement about the body? *Ch.* The body is hemi-spherical. One child now spells these words and the teacher writes them upon the board. *T.* Another may now find another part. A child finds the wings. She now calls upon the class to look at the wings and see what they can say about them. One child says, they are thin. *T.* Yes, and what more can you say of them? *Ch.* We can see through them. *T.* Then what can you say of them? *Ch.* They are *transparent.* *T.* Who can tell me something more; take them in your finger and bend them, and fold them. Now what can you say? *Ch.* They are *flexible.* The teacher requires the children to look at them, and see what they are made of, and what they look like. *Ch.* They look like a thin skin. *T.* That is right; they are composed of a thin substance called membrane, and because they are formed of this thin membrane, we say they are *membraneous.* What can you say of the wings? *Ch.* They are *membraneous.* The teacher now questions the children on this term until they understand it thoroughly. She then asks them to tell her in a nice statement all they have learned about the wings, and obtains from them

this statement: "The wings are transparent, flexible and membraneous," which they also spell, while the teacher writes it upon the board.

T. Now you may find another part. *Ch.* The eyes. *T.* What can you say about the eyes? *Ch.* They are bright. *T.* Give me a statement of this. *Ch.* The eyes are bright. Children spell and the teacher writes on the board. Another part is now called for by the teacher, and the children find the legs. *T.* Johnny, what can you say of the legs? *J.* They are short. Another child says, "They are thin. *T.* Instead of thin, what can you say? *Ch.* Slender. *T.* That is right. Tell me now how the lady bird uses his legs to walk. *Ch.* He bends them. *T.* What has he in his legs when he bends them? *Ch.* Joints. *T.* What can you say of the legs? *Ch.* They are jointed. *T.* Look closely and see what you can find on the ends of the legs? *Ch.* Claws. *T.* Yes, the legs are armed with claws. You may tell me now, in a statement, all you have learned about the legs. *Ch. The legs are short, slender, jointed, armed with claws. Ch.* spell. W. B.

T. Some one find another part. *Ch.* The wing cases. *T.* I will tell you a better name for them. We call them *elytra.* What do we call them? You may now spell this word. W. B. You may now tell me something about the color of the elytra. *Ch.* They are red, spotted with black. *T.* Dora, where are the wings? *D.* Under the elytra. *T.* How do you know the elytra are over the wings? *Ch.* Because we can see them when they are spread out. *T.* Then what do you say of them? *Ch.* They are opaque. The teacher tells the children to pull off the elytra and look at them. What shape are they? *Ch. Oval,* round, curved. *T.* Instead of saying they are round on the outside, you may say they are *convex. Ch.* The elytra are *convex* on the outside. Spell *convex. T.* Now you may tell me what shape they are on the outside. Children say, they are *rounded in. T.* Now instead of saying they are rounded in, you may say they are *concave.* They are now exercised thoroughly upon these terms. Children spell them and teacher writes upon the board.

The class are also questioned upon the application of these

these terms to other objects. *T.* Tell me, if you can, something more about the elytra. Look closely; try and break them; feel of them. *Ch.* They are smooth. They are brittle. They are bright. *T.* Why are they brittle? *Ch.* Because they break easily. The teacher now obtains from the class all these qualities of the elytra, causing them by questions to put them in a concise and simple statement, which the pupils spell and the teacher writes upon the board. The attention of the pupils is now drawn to the head, and they are led to discover and name the feelers. *T.* Instead of calling these feelers, you may say *antennæ*. Ch. spell. They are now led to look at the antennæ in regard to shape, and the terms *cylindrical*, *long*, *slender*, are obtained, formed in a statement, spelled and written upon the board. The class are next led to observe the mouth, and the children find the horns, for which the teacher tells them *palpi* is the right name. Children spell. Teacher W. B.

The term *Habits* is now written upon the board, and the teacher says, "In what country does the lady bird live?" *Ch.* In our own country. "What kind of a country is this?" *Ch.* Neither very warm nor very cold. "What do we say it is then?" *Ch.* A temperate country. The class give the statement, spell, and Teacher W. B. *T.* Some one may tell me where they have seen the lady bird. *Ch.* On bushes, hop vines, etc. *T.* On what do you think it feeds? *Ch.* Bugs, insects. *T.* Yes, on insects. Class give statement. Spell. W. B. *T.* Where are these insects? *Ch.* On leaves. *T.* What can you tell me about the size of these insects? *Ch.* They are small. *T.* What kind of eyes must the bird have to see these insects? *Ch.* Sharp, bright. The teacher, from this, obtains from the class this statement: "The lady bird's sense of sight is acute. Spell. W. B. *T.* How does the lady bird gets from place to place? *Ch.* It flies. *T.* Give me this statement. Spell. W. B. *T.* What time of the year do we find lady birds? *Ch.* All say, in summer. *T.* Where do you think they live in winter? *Ch.* They sleep in nests. *T.* Yes, they sleep all the long cold winter in their nests, and never wake up until the spring, and because they do this, we say they *hybernate* They are now exercised thoroughly upon this term, statement made, spelled and written upon the board.

The teacher now asks for the use of the lady bird to man, and obtains from the children that it eats the insects from the gardens. Spell. W. B.

The class now reads in review all the statements upon the board, and the teacher questions them upon each statement, and especially upon the terms developed.

Matter as it has been written by the Teacher:

THE LADY BIRD.

PARTS.

The body is hemispherical.
The wings are flexible, transparent, long and membraneous.
The legs are short, slender, jointed, armed with claws.
The elytra are red, spotted with black, opaque, convex on the outside, concave on the inside, smooth, bright and brittle.
The eyes are bright.
The antennæ are long, cylindrical and slender.
The palpi are short.

HABITS.

The lady bird lives in temperate countries.
The lady bird feeds on very small insects.
The lady bird's sense of sight is acute.
The lady bird flies.
The lady bird hybernates.

USES.

The lady bird eats insects out of gardens.

In developing the ideas and terms given in this lesson, only the most important questions and answers have been referred to.

The skillful will easily see at the moment what others are needed.

NEW THEORY OF REPETENDS.

(APPENDIX.)

See Note on page 107, April number of the TEACHER.

IN the note referred to, "reversed sequences" are mentioned as a means of proving that the numerators in No. 4 are the r's in reversed order. These "sequences" are said to obtain in two series of fractional terms, viz: those in No. 2, and those in Nos. 5 and 6. But the desired proof can be attained without the use of Table No. 2; for, since each of these terms in Nos. 5 and 6 is followed by its equal fraction, and since the 10$^{\text{ths}}$ in No. 5 are the q's in reversed order, the fractional terms

T.	S.
$\cdot q\frac{1}{d}$	$\cdot q\frac{1}{d}$
$\cdot q_2\frac{r_2}{d}$	$\cdot y_2\frac{r_2}{d}$
$\cdot q_3\frac{r_3}{d}$	$\cdot y_3\frac{x_3}{d}$
.	$\cdot y_4\frac{x_4}{d}$
.	..
$\cdot q_n\frac{r_n}{d}$	$\cdot y_n\frac{x_n}{d}$

may be generalized as in Table (T); for if we substitute x for r, since $\frac{x_2}{d}=\cdot q\frac{1}{d}$, $\therefore \frac{10x^2}{d}=q+\frac{1}{d}$ $\therefore 10x_2=qd+1$.

But $10r_2=qd+1$ (C) $\therefore x^2=r_2$. In the same manner, each term of x can be shown to be equal

7)1.0 (.....5 7 ł
. $q_2 q\frac{1}{d}$
.
40 = $10r_3=dq_2+r_2$ (B)
35 = dq_2
50 = $10r_2=dq+r_1$ (C)
49 = dq
1 = r_1

to its corresponding term of r. Therefore the numerators in No. 6 are the r's in reversed order (commencing with 1); and since they are *transferred* from No. 4, those in No. 4 (commencing with s or r_2) are the r's in reversed order. *Q. e. d.*

SCHOLIUM 1.—The above demonstration is based on the fact that the 10$^{\text{ths}}$ in No. 5 are the q's in reversed order. But if this quality had not appeared, and if nothing were known of the composition of the fractional terms in Nos. 5 and 6, except that the first term is $\cdot q\frac{1}{d}$, and that each term is followed by its "equal fraction," whose denominator is d, that commencement and that sequence form together sufficient data to demonstrate that the 10$^{\text{ths}}$ are the q's in reversed order, and that the numerators are the r's in reversed order.

DEMONSTRATION.—Let the 10^{ths} be represented by terms of y, and the numerators by terms of x, as in (S). The fraction in the second term is evidently $\frac{r_2}{d}$. Then since $\frac{x_3}{d}=.y_2\frac{r_2}{d}$.·. $\frac{10x_3}{d}=y_2+\frac{r_2}{d}$

.·. $10x_3-r_2=dy_2$ (A). Now $10x_3$ ends in 0. .·. dy_2 ends in 10 minus the last digit of r_2. But dq_2 ends in 10 minus the last digit of r_2, because $10r_3-r_2=dq_2$ (B). Since, then, dq_2 and dy_2 end in the same digit, and since d ends in 1, 3, 7 or 9, .·. $y_2=q_2$, because there are no two digits* which, used as factors with numbers ending in 1, 3, 7 or 9, make products ending with the same digits, as may be seen by inspection of the multiplication table.

Substituting q_2 for y_2 in (A), we have $10x_3=dq_2+r_2$.

But we have above in (B) $10r_3=dq_2+r_2$

.·. $x_3=r_3$. In the same manner we can show that $y_3=q_3$, ... $y_n=q_n$; and $x_4=r_4$, ... $x_n=r_n$. Therefore each term of y and x in (S) is respectively equal to its corresponding term of q and r in (T). *Q. e. d.*

SCHOLIUM 2.—The process necessary to find the value of the terms of x and y is identical with that which forms R of $\frac{1}{d}$, backwards *by division.*

SCHOLIUM 3.—The fact that the numerators in No. 4 are the $r^{'s}$ in reversed order, is herein made manifest in a more systematic and generalized form than in the April number. W. W.

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*If two such digits are possible, let them be n and $n\pm z$; and let k represent *any odd number.* The products are kn and $kn\pm kz$, whose difference is kz .·. kz ends in 0. Therefore (observing that z is a digit) k does not end in 1, 3, 7 or 9, because neither is a factor of 10, nor has any factor that is a factor of 10.

COROLLARY.—Multiples of numbers ending in 5 (the only numbers that can be substituted for k), have only two terminations. For since kz is even, and k is odd .·. z is even, and may stand for any even digit. Consequently n and $n\pm z$ include all even numbers or all odd numbers, according as n is even or odd.

ORIGIN AND PROGRESS OF THE MICHIGAN SCHOOL SYSTEM.

Paper read before the Association of County Superintendents, at Marshall, July 9, 1868. by Hon. John D. Pierce, of Ypsilanti.

(Concluded.)

Wishing to prepare myself for the contest that I was aware must come, and did come in earnest, I addressed, in the summer of 1837, a circular letter to a number of gentlemen in the world of letters, proposing this question: "Shall we, in the commencement of our career as a State, grant to an indefinite number of private associations the right of conferring degrees, or for the present concentrate our energies in one University?" I received answers from such men as Dr. WAYLAND, President of Brown University, Gov. EVERETT, of Massachusetts, Pres. HUMPHREY, of Amherst College, Bishop MCILVAINE, of Ohio, Pres. DAY, of Yale, and many others—all deploring the multiplication of institutions under the imposing name of Universities and Colleges as unfavorable to sound learning, and advising, if possible, the plan of concentrating our energies in one University. President MCGUFFY made this striking and explicit declaration: "All that can be said of the Universities and Colleges of the South and West is, they are well endowed academies, though some of them are not even that." As the letter of Bishop MCILVAINE expresses so clearly and so fully the views of all, and as a specimen of the whole, I give it entire:

"KENYON COLLEGE, July 26, 1837.

"DEAR SIR:—Long absence from home has prevented my answering your circular letter sooner than the present. It requires but little time to make up an opinion upon the question you propose. I consider the present multiplication of institutions called Colleges, and empowered to confer degrees, exceedingly detrimental to the interests of genuine education. They so divide patronage as to create a competition which, instead of leading to the result which some suppose must be the consequence, of elevating the standing of the several institutions, produces precisely the opposite. An uneducated community is to be courted and pleased, a community easily taken with names and promises, and lists of students, and new methods, and short roads, and cheap acquirements.

Who shall please said community the most becomes the strife. The strong temptation there is to lower the terms of admission, retain the names, but lower the amount of the studies, relax the discipline, confer degrees on persons not fit to be Sophomores, and so make the honor of a graduate a miserable weed instead of a classic laurel. The *prima laurea liberalis educationis* has greatly withered in these parts. Where such multiplications have taken place, it is difficult for an institution that wishes to maintain a dignified stand, to compete in patronage with others of less conscience in such matters.

"I consider that with the property devoted to college education in Michigan, you have a most noble opportunity of taking and holding dignified ground on this subject; of building a breakwater against the winds and waves by which other less independent institutions are in danger of being overwhelmed; behind which the sciences and classics may anchor in peace, and have *otium cum dignitate*. I would say, by all means improve it by having but one place of degree in Michigan; and that a University perfectly endowed and furnished. Other States will supply the little colleges. Be it yours to set the example of a genuine University, a mother of learning, rejecting, not following, the opinions of the inexperienced on subjects of education.

"Yours very truly, C. P. McILVAINE."

But notwithstanding the cogent reasons and unanswerable arguments presented by the ablest men of the land, yet so persistent and combined were the private and personal interests connected with other enterprises, that it was doubtful for a time, even to the last hour, when the final vote was taken and the question settled, how it would be determined. Had the result been different, you would never have heard of the University of Michigan, which is now the pride and crowning glory of the State. My object was to combine, in the support of one institution, worthy the name of a University, all the elements that could possibly be brought together, and especially the leading Christian denominations of the land. We had the fund and must use it, having accepted the trust, not in scattering it abroad, but in accordance with the true interest of the grant, in founding and sustaining a real University. And my determination was to prevent, if possible, any failure or pervertion. That nothing of the kind should ever be laid to my charge, I trust I may be allowed to present to you my closing remarks on this great question, made in my report to the Legislature of 1838, while the matter was still in doubt and undetermined:

"Deeming the question above discussed to be one of vital importance, the Superintendent has felt constrained, in the outset of that career of improvement on which the State seems disposed to enter, to present to the consideration of the Legislature his views in an extended form on the subject.

"It is to be borne in mind that the policy now adopted is destined to affect the literary standing and character of the State, not only for the time of the present generation, but so long as the Republic and its institutions shall be preserved, nay more—so long as its name and the memorial of its deeds shall be read in story or in song."

The result of the decision of that day, on the then future, is now known and read by all men. It was a triumph that was exceedingly gratifying; and from that day I cherished the fond expectation that Michigan in future years would have a University worthy of the name. But I never expected to live to see it reach such an eminence as it has already attained. Henceforth let wisdom guide its councils. Let no claim to recognition, that must degrade it from its high position, be listened to for a moment. As well might the disciples of PAINE claim to be recognized, as any other class whose presence must destroy its usefulness.

One other question of great interest fell to my lot, solitary and alone, to decide, the decision of which, for the time being, created much ill-feeling, and brought down upon me a storm of denunciation. Indeed, so intense was the excitement, that an indignation meeting was proposed to be called at Ann Arbor. The occasion was this: The Legislature passed an act authorizing the Regents to procure a plan for buildings. They employed an architect from New Haven to draft one; that plan, if approved by the Governor and Superintendent of Public Instruction, should be adopted. The one prepared was truly a magnificent design, and would, in that day, have involved an expenditure of half a million, if not more. It was accepted by the Regents and approved by the Governor. It was presented to me. Most respectfully, yet decidedly, I refused it my assent, and gave as a reason that it would absorb so much of the University fund as would cripple it in all time to come; and urged further that a University did not consist in buildings, but in the number and ability of its professors, and in its other appointments, as library, cabinets, and works of art. The result was,

the Regents receded, and the present plan was adopted, and the University started into being. Twenty years after, or more, at the house of Dr. DENTON, one of the medical professors, in company with President MORGAN, of Pennsylvania, the Dr., in referring to my course in refusing my assent to their plan for building, and the bitter feeling incited against me at the time, remarked that, while he was unwilling to give me credit for so much sagacity as seemed to be implied in my action, yet he would truly say that it was the best thing that had ever happened in the State. My reply was that I was just as well satisfied then as now that its adoption would have been fatal to the institution.

There was one other question in the settlement of which I was called upon to take part. It was my purpose from the beginning to make all our schools free in every case, from the lowest to the highest—free from rate bills and tuition bills. I assumed the position that the property of the State should be holden for the education of every child in it. But the wealth of the State has ever opposed free schools; and yet no class are more deeply interested in the education of all. There is no safety in the midst of debased ignorance. It was urged that while the University should be open to all our own young men, we surely were not called upon to admit others without tuition. True, but every young man that comes to our University spends his money here; and there is nothing which gives so much importance and character to a State as an institution of high standing, to which young men from all parts of the world can resort. The view taken was, this will be worth more to us than any tuition bills that might be charged—even to a hundred-fold. Besides, young men from abroad cannot be expected to come here unless there are inducements beyond those existing in other institutions. This policy was finally adopted; and I think that no one at this day can say that it was not the wisest and best course.

It will thus be seen that at an early day we had some important questions to settle, the determination of which has not ceased to have a direct bearing upon the educational interests of the State, from that day to this. An enterprise so magnificent

as the education of a whole people, to be successful, must rest on a firm basis. After referring to what the Legislature had done in perfecting what might be termed the Michigan school system, I expressed my confident expectation of its success in these words:

"What remains is to carry it into successful operation, making, from time to time, such modifications as experience shall determine to be necessary and desirable. Most certainly we have laid the foundation for raising a fabric of gigantic proportions and great magnificence; one whose superstructure, when duly perfected by the wise hand and councils of experience, cannot fail of being the ornament and glory of Michigan in all coming time, and as useful in all its apartments, as grand and beautiful in its design. Hence, if we fail, as justly remarked by a distinguished gentleman, at the late session of the College of Professional Teachers, 'it will be a magnificent failure,' and draw after it consequences of direful import. But we trust in that providence of the all-wise, the high and mighty Ruler of the universe, which has thus far so benignantly and prosperously guided the councils and affairs of our State, that the system is destined to flourish and bear much fruit; even long after those who were instrumental in its production shall have returned to the dust of the valley, and gone to their final home."

I may say in this connection, that we had in our settlements at that time a large proportion of educated men, and many families anxious for schools of a high order, ready to engage in any enterprise that promised success. The leading men of that day were the fast friends of education, and hence our success. This was especially true of the convention and of the first Legislature.

I have thus given you a mere outline of the past of Michigan, so far as its educational interests are concerned. No new State ever started into being with so many warm and devoted friends of education, as our State. Five of the best years of my life I gave to the work. In it I traveled by night and by day—on one occasion, five whole nights out of eight, not in railroad palaces, but in lumber wagons and stage coaches, through rain, mud, frost and storm. But I can truly say I feel myself fully compensated.

I have had my day, or nearly so. My work is nearly done. If I am spared to go through my present term, it is all that I can expect. You and each of you will have your day, and your work. But of all work on this living earth there is none to compare with teaching children and youth.

To me it is a matter of thankfulness, that God, in his dealings with man, has taken such peculiar care of children. How often do we meet with this expression, so tender and affectionate —"and your little ones," and how it comes home to the warmest sympathies of the heart, to see the Lord Jesus blessing the young; even taking little children in his arms and blessing them. If you do your work properly you will bring out in the end jewels and diamonds, polished after the similitude of a palace.

I was followed by FRANKLIN SAWYER; he was succeeded by Rev. O. C. COMSTOCK; his successor was IRA MAYHEW; after him FRANCIS W. SHEARMAN took the office, and then Mr. MAYHEW again; he was succeeded by J. M. GREGORY, who was followed by the present incumbent, O. HOSFORD.

I recollect a remark of Mr. CRARY, which he made when we first discussed the question of making education a distinct branch of the government: "Though the office may not always be filled with as much learning and ability as could be desired, yet its very existence will have a tendency to keep the subject perpetually before the public mind." Time has fully verified the truth of these words. They were emphatically the words of wisdom.

Gentlemen, the land is before you. Go ye in and possess it. The field is broad and promising; cultivate it—a rich harvest is in the future. The guardianship of hundreds of thousands of children and youth is committed to you. The law says to you in the most emphatic terms, protect them, suffer no incompetent teachers to enter the school-room. I know well that the work requires self-denial, but the reward will come in the end. However hard it may be to say to a young man or woman, you are not qualified to teach, it would be much harder to allow unprotected children and youth to be robbed of their precious time, and the money appropriated for their special benefit. What was said of old by a distinguished ruler to his son on assuming the reins of government, may appropriately be addressed to each and every County Superintendent—"*Show thyself a Man!*"

EDITOR'S DEPARTMENT.

IT is with great pleasure that we announce the fact that Mr. HENRY A. FORD, of Niles, has become associated with us in the editorship of the TEACHER. Engrossed in the duties of our profession, for three years and a half we have performed this extra work, with no other compensation than the satisfaction of believing that we were lending a helping hand to our fellow teachers. Wishing to give a still more distinctive character, and a greater efficiency to our journal, we have solicited the aid of a gentleman who has ever been a steadfast friend of the TEACHER, and is an enthusiastic believer in educational progress. It seemed just, moreover, that that body of men who really have the destinies of our school system in their keeping, should have a representation in the management of the State educational journal.

It is probably well known to all our readers that the predecessor of the TEACHER was the *Michigan Journal of Education;* but we imagine that it is not so well known that a vigorous educational journal was established at the time when our present school system was taking shape. We have before us a file of the *Journal of Education*, edited by JOHN D. PIERCE, and bearing date, "Detroit, March, 1838." At that time Mr. PIERCE was Superintendent of Public Instruction, the first who was elected to this office, and the *Journal* was established to serve the double purpose of awakening an interest in education among the people, and of communicating to all interested, various items of an official character. The *Journal* was a monthly, of eight pages, resembling in external appearance the *American Agriculturist.* A large part of the first number is given to the publication of Professor SLOWE'S report on *Elementary Public Instruction in*

France. The number for April contains two circulars from the Superintendent, one addressed to the School Inspectors, and the other to the District Attorneys of the State. It seems that extensive trespasses were committed upon the university and school lands, by cutting and removing valuable timber, and the officers above named were directed to vigorously prosecute all who were thus offending. The same number contains an account of a meeting of the *Michigan Historical Society*, held February 28, 1838, at which Hon. L. CASS, minister at the Court of France, presented, by proxy, the "Pontiac Manuscript," giving an account of a conspiracy to take the Fort of Detroit, by the Lake Indians, in 1763. Major BREVOORT presented the original Indian deed, of the date 1771, of a farm at Springwells.

In the August number we find a review of *Town's Speller.* The critic has a keen eye, and his strictures must have been of exceeding interest to publisher and author. In November Mr. PIERCE associated with himself Mr. FRANCIS W. SHERMAN, as associate editor, and in December the *Journal* is printed in Marshall. In the number for August, 1839, Mr. J. O. TAYLOR begins to give an account of "Our Educational Tour in Michigan," from which we quote the following:

"YPSILANTI. The flourishing village is 15 years old and already numbers 2,000 inhabitants. It contains four excellent schools, two district and two private schools. Mr. D. HAMMOND, the teacher of one of the district schools, is an experienced, well informed, competent instructor of youth. His school numbers 65. The external appearance of the school house is pleasant; but the rooms are not ventilated, and the desks and seats are badly constructed."

All in all the *Journal* is highly creditable to its editors, and is of great interest as a relic of the agencies by which our school system was moulded into its present shape.

No meeting of the Michigan Association of County School Superintendents has ever been more largely attended, more interesting, or productive of greater usefulness, than the July meeting at Kalamazoo bids fair to be. A highly favorable season; the most beautiful village-city in the State, if not in the

West, and an elegant parlor, for the place of meeting; the generous hospitality and thorough appreciation of a cultivated community; a programme of unusual excellence;—are attractions that will not be disregarded. Not a notice of non-attendance has yet been received by the President of the Association, in response to his preliminary circular; while numerous letters, already at hand, indicate the attendance of their writers. At no meeting hitherto, we believe, has any Superintendent from the Upper Peninsula been present, but at least one has signified his intention to attend the July meeting; also a number from the far northern counties of the Lower Peninsula. "Father PIERCE" will lend his venerable presence and valuable aid for, perhaps, the last time to the sessions of the Association. Special invitations have been extended to Supts. DOTY, of Detroit, PICKARD and EBERHART, of Chicago, DEWOLF, of Toledo, RICKOFF, of Cleveland, and other distinguished City Superintendents, to add their counsels to its deliberations. The programme will be found in our Educational Department. It proposes the analysis of every important section of the County Superintendents' Act, by experienced members, and of the late Free School Act, by Ex-Supt. PIERCE, the sire of the educational system in Michigan. Its execution cannot fail to be of the highest utility, especially to the Superintendents new to their official duties. We hope to see a full assembly of them at Kalamazoo.

It will be remembered by many of our readers that Supt. B. R. GASS and Miss GERTRUDE HOWE, of the Lansing Public Schools, were sued last year by an irate parent, and after a farcical trial convicted and fined. The case was appealed to the Circuit Court, but the trial did not take place, in consequence of the justice who presided at the original trial neglecting to furnish the appeal papers, until demanded of him by an officer sent by the Circuit Court. The matter would have come up at the spring session of the Court, but has been postponed by the prosecution on the plea that an important witness is sick, although we are informed that said witness—a young girl—is well enough to walk a mile every day to attend a select school.

The fact is that the prosecution knows that the verdict will be reversed, and uses every means to stave off the trial. The hearing is now set for September.

We doubt if the question of the education of women has ever been presented in a clearer light than in the following extract from *Packard's Monthly*, from the pen of the philosopher of the *Tribune*. "If you tell me that mathematics, for instance, is a science to which women's powers are unequal, I answer, that depends upon *which* woman you refer to. There are a great many women not qualified to shine, even in orthography; yet, I would not, on that account, forbid them the use of the spelling-book. I shall not advise *my* daughter to study Greek; but if she *chooses* so to do, and I make no objection, I don't see why others should trouble themselves about the matter. I believe nature is competent to the vindication of her own laws, and that no act of Congress, no decree of a Board of Education or University Regents, is required to prevent the growth of cucumbers in pea vines, or artichokes on hop-poles. These matters may be trusted to regulate themselves. I would have, then, our Academies and Colleges, like our Common Schools, open to all cleanly and well-behaving persons who may see fit to claim their advantages, and pay the established charges, without exclusion on account of age, or caste, or sex."

Through the courtesy of Prof. J. S. HART we are enabled to present the following particulars, in regard to the associations meeting at Trenton, New Jersey, in August:

The educational meetings to be held in Trenton, New Jersey, on the third week of August, promise to be a distinguished success. Three great National Associations hold their annual meetings there that week. The Association of State Superintendents meets on Monday, that of Normal School Principals and Teachers on Tuesday, and the General Association of Teachers on Wednesday, Thursday and Friday.

Address by the President, Rev. L. VAN BOKKELEN, late Superintendent of Public Schools of Maryland.

Prof. ELLIS A. APGAR, State Superintendent of New Jersey, "Method of Teaching Map Drawing in Schools."

Prof. AUSTIN C. APGAR, State Normal School, Trenton, N. J., "Method of Teaching Elementary Arithmetic."

Major General O. O. HOWARD, U. S. Army, "Education in the South with reference to the Colored Population."

An exercise in "Practical Teaching," with criticisms and a discussion as to the necessity of such an exercise in a Normal School, and the best method of conducting it.

Prof EDWARD A. BROOKS, Principal of the State Normal School, Millersville, Pa., "The Spiritual Element in Education."

Prof. FORDYCE A. ALLEN, Principal of the State Normal School, Mansfield, Pa., "Course of Study for a Normal School."

Prof. LEWIS B. MONROE, of Boston, "The Voice and its Training," with illustrations and readings.

Prof. JOHN S. HART, Principal of the New Jersey State Normal School, "Method of Conducting Religious Worship in Schools."

Mrs. RANDALL, of the Oswego Training School, "Method of Teaching Elocution." Readings.

Miss SWAYZE, of the New Jersey State Normal School, "Vocal Culture." Readings.

Rev. JOSEPH ALDEN, D. D. LL. D., Principal of the State Normal School at Albany, N. Y., "What is the best Teaching for a Normal School?"

Prof. Z. RICHARDS, of Washington, D. C., "Elementary School, Radical Faults, Radical Remedies."

Rev. GEO. A. LEAKIN, of Baltimore, "Periodic Law as applied to Education."

JOHN D. PHILBRICK, Esq., Superintendent of Public Schools of Boston, "The Workshop and the School."

Rev. B. G. NORTHRUP, State Superintendent of Connecticut, "Rate Bills, Public Schools."

Prof. I. P. WICKERSHAM, State Superintendent of Pennsylvania "Higher Education."

Mr. WHITE, of Boston, "Christianity in our Public Schools."

We fully endorse the sentiment of the following, from the *Tribune:*

"There is a matter that we speak of now on the principle of the old adage that late is better than never. Last year the Junior Exhibition at our State University was disgraced by a 'burlesque' that could not well have been viler in any respect. This year the Junior Exhibition passed off without any 'burlesque' at all. The Class of '71 is entitled to honorable mention for ending a custom that was without sense in its origin, and tended only towards shameful results.'

PRACTICAL DEPARTMENT.

HOW TO GRADE A SCHOOL.

FIRST PAPER.

REQUESTS have come from several sources for information with respect to the grading of Union Schools, and a few words relating to the general subject may be of service to more than one reader of the TEACHER. The principle which gives preeminence to Graded Schools is *the division of labor* whereby pupils of a similar degree of advancement are taught together, and pass in *regular order* from one course of instruction to another. This system secures the greatest economy of labor by allowing each teacher to reach the greatest excellence in a few branches which receive her constant attention. It promotes the good of the pupil by making his instruction thorough, systematic and complete. But to secure these ends, the course of instruction must be wisely planned—adapted in kind and amount to the progressive wants and capacities of the pupil. On one hand, the course should be so rigid as to secure what is best for all, regardless of whims or caprice, for it must be assumed that the unlearned are incompetent to draw up a scheme of study for themselves; and on the other, it must be flexible enough to encourage the efforts of those who are more industrious or more talented than the majority. As a rule, each pupil should be kept strictly to the prescribed course, but whenever it cramps or restrains a more active pupil it should not prevent his entering a higher grade. In actual practice such promotions may occur whenever there is a manifest advantage to be gained.

A graded school comprehends classes of successive degrees of scholarship, from elementary reading to Latin and Rhetoric. This arrangement involves the assistance of several teachers, and so it happens that in small schools, say of one hundred scholars, in charge of two teachers, even a moderately strict classification is impossible. We will say that on an average each teacher can hear ten recitations daily. Under this arrangement, then, there will be twenty classes for the accommodation of one hundred pupils. We will further suppose that on the average each pupil, or each grade of pupils, has four recitations. There will then be accommodations for only five grades of scholarship. As a consequence, pupils of very different degrees of scholarship must be classed together, so that the great end of a graded school is only partially attained—*that of giving to each pupil just those advantages which his peculiar qualifications require.* Of course, absolutely considered, each pupil is unlike every other in this particular; but for practical purposes there may be such a grouping as will promote the highest good of all.

It has been found by experience that, below the High School, pupils may be divided into *ten grades*, or five departments, and that one teacher can profitably instruct two of these grades. With a High School course of three years, a graded school may be profitably conducted by seven teachers —a Principal and six assistants. Each Primary School will thus be in charge of one teacher, and the Principal with one assistant can conduct the High School. We regard the employment of a teacher to assist the Principal as a matter of necessity. Many of our smaller Union Schools are by no means what they might be, for the simple reason that the Principal's time is wholly occupied in teaching, so that the schools have no systematic supervision. In fact, a graded school is a very complicated machine, which can be kept in good order only by the constant attention of one who is able instantly to detect disarrangement and provide a remedy.

These are the principles, it seems to us, on which a graded school should be organized, and whenever these conditions are present, the work of classification may be carried out with profit. The next paper will explain this subject more in detail, giving suggestions for the arrangement and naming of grades and departments, and for drawing up courses of study.

There is scarcely any item in school statistics of more interest and value than the average age of each grade and department. From this may be seen the rate of progress from one department to another—whether any portion of the course is too light or too heavy. We would recommend that Principals, at their examinations in June, secure these averages, in years and months. A comparison of these, for successive years, will be a matter of great interest. Below we give a table of average ages in the Ypsilanti Union School. The results are based upon the actual attendance, June 1st, 1869.

DEPARTMENT.	BOYS.	GIRLS.	A CLASS.	B CLASS.	DEP'T.
	Y. M.	Y. M.	Y. M.	Y. M.	Y. M.
First Primary, ..	7. 5½	7. 9½	8. 7½	8. 2½	7. 6
Second Primary,.	10.	8.10	9.11	8.11	9. 5
Third Primary,..	11. 8	11. 6½	12. 4	11. 4½	11. 7½
Intermediate, ...	13. 5	13. 6	13.10	13. 2	13. 5½
Grammar School,	14. 6½	14.10	15. 5½	13.11	14. 8

Average age of pupils, below the High School, 11. ½. Average age of boys, 11.5; of girls, 11.4. The course of study is designed to occupy one year in each grade, two in each department.

We are indebted to Prof. E. DARROW, of the State Normal School, for permission to publish the following tabular statement of the Continental Pronunciation of Latin, prepared by him for class use:

German Pronunciation of Latin.

I. Syllabication.

1. Every word has as many syllables as it has vowels and diphthongs; as *vice, vi-ce.*

2. A single consonant between two vowel sounds is joined to the latter; as *i-ti-ne-ra.*

II. Sounds of Vowels.

1. The vowels ending a syllable are sounded like *a, e, i, o, u,* in the English words f*a*r, th*e*y, mach*i*ne, r*o*de, r*u*de.

2. The vowels not ending a syllable are sounded nearly like *a, e, i, o, u,* in the English words Jehov*a*h, m*e*t, s*i*t, n*o*t, p*u*t.

Note.—The vowel *y* has the same sound as *i* in the same situation.

Exceptions.—1. *Os* final in the plural cases sounds as *ose* in dose. 2. *I* after an accented *a, e, o,* or *y,* and before another vowel, has the sound of initial *y.* 3. *J* has the sound of initial *y.*

III. Sounds of Diphthongs.

The diphthongs *ae* and *oe* are sounded like *e; oi* like *oi* in oil; *ei* like *i* in ice; *au* like *ou* in our; *eu* like *eu* in neuter.

When *ua, ue, ui, uo,* and *uu* are diphthongs, *u* has the sound of *w,* as *suadeo, cui,* pronounced *swa-de-o, kwi.*

IV. Sounds of Consonants.

C before *e, i, y, æ* or *œ,* and *t* before two vowels, the first of which is an unaccented *i,* have the sound of *ts.*

Exceptions.—*T* after *s, t,* or *x,* has the sound of *t* in *tin.* *G* always has the hard sound, as in *go.* *S* always has the hard sound, as in *so.* *Ch* has the sound of *k.* The other consonant sounds are the same as in English.

Book Notices.

THE JOURNAL OF SPECULATIVE PHILOSOPHY. St. Louis, Mo.: *E. P. Gray.*

If this journal serves no other purpose, it will at least help to dispel the common prejudice in regard to the nature of German philosophy. The Philosophical Society of St. Louis, and the editor, Mr. W. T. HARRIS, have done a work for which they deserve the thanks of American students. It is gratifying to learn that a journal like this, devoted to subjects that have not "bread and butter" for their outcome, can be a success. With 1869 the "*Speculative*" enters upon its third year, much improved in appearance. Its matter consists mainly of translations from the German and French, with some original contributions. Among the former it has contained Introduction to FICHTE'S Science of Knowledge, BERARD'S Essay on HEGEL'S Æsthetics, SCHOPENHAUER on Immortality, FICHTE'S Criticism of Philosophical Systems, HEGEL'S Philosophy of Art and Phenomenology of Spirit, SCHELLING'S Introduction to the Philosophy of Nature and Introduction to Idealism, LEIBNITZ' Monadology and Nature of the Soul, Philosophy of BAADER, SCHOPENHAUER'S Dialogue on Immortality and his Doctrine of the Will, GŒTHE'S Essay on the Laökoön and WINKELMAN'S Essay on the Laökoön. The original contributions have been an excellent Introduction to Philosophy by the editor, Mr. W. T. HARRIS, who has also written papers upon GŒTHE'S Theory of Colors, HERBERT SPENCER, Analysis of HEGEL'S Phenomenology, Intuition *vs.* Contemplation, Nominalism *vs.* Realism. Miss ANNA C. BRACKETT has written several striking poems, Notes on MILTON'S Lycidas, and "A Thought on SHAKSPEARE." Mr. C. S. PIERCE has discussed the Grounds of Validity of the Laws of Logic and Questions, concerning certain Faculties claimed for Man. This partial enumeration will show the range of subjects treated in the journal, and we trust lead many of our readers to subscribe. The *Journal of Speculative Philosophy* is published at $2.00 a year. The two volumes already published together with the third for 1869, will be furnished for $5. Address, W. T. HARRIS, Box 2398, St. Louis, Mo.

POCKET DICTIONARY OF THE FRENCH AND ENGLISH LANGUAGE. By FERDINAND E. A. GASC. Philadelphia: *J. B. Lippincott & Co.* 1869.

This is a really useful little handbook. It contains all the words in ordinary use, and a very full account of idioms. The number of meanings given for prepositions is unusually large, and add much to the value of the work. We feel no hesitation in recommending it to students of the French Language as a valuable aid in translatien.

WORCESTER'S QUARTO DICTIONARY.

We have received from the publishers, Messrs. BREWER & TILESTON, Boston, Mass., a copy of "A Dictionary of the English Language, by JOSEPH E. WORCESTER, LL. D." It is a magnificent quarto volume of 1854 pages. It is now less than ten years since this work was published, yet we can already see that its appearance forms an era in English lexicography. It was the first dictionary, since the day of JOHNSON, to present our entire mother tongue, as it exists in the speech and literature of the present century, in contradiction from the devices and theories which proposed its modification. It presented the English language as it is, in the acceptance of its scholars, rather than as a theorist might suggest it should be.

In this point of view it has been heartily welcomed by scholars. Through their influence it has been steadily gaining favor with the people, and is becoming more and more the generally acknowledged standard of correctness in writing and in speaking, for the form as well as the meaning of words. It has now been in use long enough by the critical minds who speak our language to have been thoroughly put to the test at every point. It has successfully sustained this test and fully maintained its pre-eminence.

That the work is complete or perfect we will not claim. Although there is no point in which its superiority to every other dictionary is more unquestionable than in its etymology, yet, by a revision, this work might be greatly improved. More careful and thorough study of this subject since its issue has naturally created a demand for a still more accurate and scientific digest of the results already obtained. Some of the etymologies given are incomplete, though very few can be called erroneous. The true value of such an etymological account of each word, as can be given in such a work, has not always been kept in view. Speculative derivation and curious analogies have, after all, but very little value in a work of this kind. The object should always be to give an outline history of the word, how it came to have its form and meaning. On this hand WORCESTER is always interesting and suggestive, often full and accurate, but still, on some points, not yet fully up to the ideal of a complete English Lexicon. By incorporating in it the best results reached by recent students of the language, it would be made to rank with the best lexicons of the classic tongues.

But after all its great practical value rests upon other features than its etymologies. It is consulted almost in all cases, to determine the meaning, the spelling or the pronunciation of a word. In its definitions Dr. WORCESTER'S Dictionary has a formidable rival in the later improved edition of Dr. WEBSTER'S Dictionary. To a critical mind there may be some words that appear to be better defined in the latter work, exhibiting more ingenuity in presenting hidden shades of meaning. But, most frequently, distinctions are made where none really exist, and become tiresome, if we attempt to put them in practice. A familiar acquaintance with Dr. WORCESTER'S work has satisfied us that scarcely one instance can be found wherein any good meaning of a good word can be found to be wanting.

In spelling and in pronunciation this work stands alone and unequalled. There is nothing that can be compared with it, for there is no other in our language that approaches it as a record of the accepted orthography and

orthoepy of the English scholars,—its comprehensiveness on which, in this respect, has any claim to equal authority. It reports facts and does not mix up with them the author's own theories, and his dictionary bids fair to remain in substance, for many years to come, the standard of the English language.

The NEW ENGLANDER for April opens with an article by Dr. MARTIN, "San Kiau, or the Three Religions of China." The author points out the Monotheistic character of the primitive faith, and shows that traces of it still remain. It is now, however, nearly or quite supplanted by the three prevailing religions, Confucianism, Tauism and Budhism. The first is a series of ethical and political maxims, and teaches the worship of heroes and ancestors, the second is materialistic, and the third a mystical, metaphysical system, brought into China from India. These religions have a twofold character, an esoteric creed for the intelligent, and a superstitious and popular one for the vulgar.

The article on "Yale College and the late Meeting of the Alumni in New York," discusses the change of the Corporation, the relations of the College to educational reforms, its wants, etc. Mr. H. C. KINGSLEY has an interesting paper on "Spain and the Late Revolution." Mr. KINGSLEY, who was an eyewitness of many of the events described, believes, that the election of the Duke of MONTPENSIER to the throne will finally result in another revolution. Dr. PORTER continues his able article on "American Colleges and the American Public." In his present paper he discusses the necessity of determinate courses of study, instruction by lectures, the marking system, and other topics relating to college organization. The book notices in this number are numerous and of unusual interest.

BULLIONS' LATIN-ENGLISH AND ENGLISH-LATIN DICTIONARY. pp. 1012, 204. 1869. $5.00. New York: *Sheldon & Co.* Adrian: *A. W. Price.*

This work presents, in a convenient form and at a reasonable price, the latest results of Latin scholarship. It is rearranged and condensed from the Latin-German Lexicons of Dr. WILLIAM FREUND. The principle of selection has been so judicious, and the arrangement of matter so systematic, that within a comparatively small compass the student may find all he needs for the interpretation of the classic authors. The English-Latin Dictionary is a valuable feature of this work, and will commend it to those who have to purchase a book of this character.

Mr. A. S. PACKARD, Jr., has issued the seventh part of his "Guide to the study of Insects,' concluding the account of the Diptera and commencing the Coleoptera. Three more parts, at 50 cents each, will complete a work of which the value can hardly be overstated.

The *Mother's Monthly* for April is introduced by a charming wood cut, entitled "Goodmorning." We like this monthly better the more we see and read it. It contains many things to make home more happy and attractive to parents and children.

LIPPINCOTT'S MAGAZINE for June has an elaborate paper on Expression in Architecture, by Mr. HUGH DAVIDS, which will repay attentive perusal. Mrs. ELLET contributes an account of "The Maiden Soldier," who served during the revolutionary war. Hon. AMASA WALKER has another of his valuable politico-economical papers, "The Prospect of Trade." Mrs. A. L. WISTER commences a story from the German, entitled "Only no Love," which promises to be interesting. Mr. WALTER WELLS writes on "Using Strength with Economy," and Mr. HARRISON on the "Rubbish of the Patent Office." The most interesting features in the poetry of this number are the two new versions of the "Dies Irae." In the July number, Mr. ANTHONY TROLLOPE will commence a new novel, "The Vicar of Bullhampton."

Mr. W. H. HALL, of this city, manufactures a very excellent portable black-board, especially adapted to use in the Sunday School and family. They vary in size from 6 to 10½ square feet, and cost from $1.50 to $3.50. Orders for these slates, or for the making of ordinary blackboards, may be sent to Mr. HALL, Ypsilanti.

The May number of the AMERICAN NATURALIST has a pleasant paper by AUGUSTUS FOWLER on the Sand Martin. Mr. J. D. CATON gives an interesting account of his observations upon the Whitefooted or Deer Mouse. Mr. C. B. BRIGHAM has the first part of an article upon the Fresh Water Aquarium, and Mr. C. A. WALKER another, entitled "Hints on Taxidermy."

If one wants music for a small sum, and at the same time get his money's worth in reading matter, he will find such in the very interesting and worthy monthly—"PETERS' MUSICAL MONTHLY." The music is of the first class, for the voice and piano. In the April number we find:

"Aint I Sweet." By T. BRIGHAM BISHOP.
"Rest Darling, Rest." By E. C. ILSLEY.
"I'm Still a Friend to You." By WILL S. HAYS.
"He Wipes the Tear from every Eye." By H. P. DONKS.
"Forest Glade March." By CHARLES KUNKEL.
"Damask Rose Waltz." By E. MACK.

EDUCATIONAL INTELLIGENCE.

MATTERS AT HOME.

THE amount of Primary School interest to be distributed among the schools of Michigan, for 1869, is $165,292.89, to be appropriated to 351,687 school children. This is forty-seven cents to each child, two cents more than last year.

We print below the remaining bills relating to education, passed at the last session of the Legislature:

A BILL to provide for the safe keeping of Public Libraries.

SECTION 1. *The People of the State of Michigan enact*, That it shall be lawful for any persons or board entrusted by law with the control of town or other public libraries, to lease a suitable room or rooms for the accommodation thereof, or to contract with any incorporated polytechnic or literary or scientific association for the safe keeping of any such library, in the rooms or buildings of any such association, for such period as may be agreed upon: *Provided*, Such library shall continue under the control of the persons or board entrusted with the same by law: *And provided also*, That no such association shall thereby obtain any interest in the ownership of such library, or in the funds provided for its support, and that no further restriction shall be placed upon the free use thereof, by the public, than would be imposed had no such arrangement been made.

Approved March 22, 1869.

A BILL to provide for an Appeal from the Board of School Inspectors of any School District, to the Township Board.

SECTION 1. *The People of the State of Michigan enact*, That whenever any five or more tax-paying electors, having taxable property within any school district, shall feel themselves aggrieved by any action, order or decision of the board of school inspectors, with reference to the formation, or any division or consolidation of said school district, they may at any time within sixty days from the time of such action on the part of said school inspectors, appeal from such action, order or decision of said board of school inspectors, to the township board or boards of the townships in which such school district is situated, and in case of fractional districts, such appeal shall be made to the several township boards of the several townships in which the different parts of said fractional school districts are situated, who shall have power, and whose duty it shall be, to entertain such appeal, and review, confirm, set aside, or amend the action, order or decision of the board of school in-

spectors thus appealed from, or, if in their opinion the appeal is frivolous, or without sufficient cause, they may summarily dismiss the same.

SEC. 2. Said appellants shall, before taking such appeal, make out and file with the board of school inspectors, or, in case of fractional districts, to the joint boards of school inspectors, a written statement to be signed by said appellants, setting forth in general terms the action, order or decision of the board or boards of school inspectors with respect to which the appellants feel themselves aggrieved, and their demand for an appeal therefrom to the township board or boards of said townships; and shall also cause to be executed and signed by one of their number, and by two good and sufficient sureties, to be approved by the clerk of said board or boards of school inspectors, or by any justice of the peace of the township, and filed with the clerk of said board or boards of school inspectors, a bond, to the people of the State of Michigan, in the penal sum of two hundred dollars, conditioned for the due prosecution of said appeal, before said township board or boards, and also, in case of the dismissal of said appeal as frivolous by said township board, for the payment by said appellants of all costs occasioned to the township by reason of said appeal.

SEC. 3. Upon the filing of such appeal papers and bond with the said board or boards of school inspectors, the said board or boards of school inspectors shall, within ten days thereafter, make out and file with the clerk of said township a full and complete transcript of all their proceedings, actions, orders or decisions, with reference to which the appeal is taken, and of their records of the same; also, said bond and appeal papers, and all petitions and remonstrances, if any, with reference to the matters appealed from; and upon the filing of the same with the township clerk, the said township board or boards shall be deemed to be in possession of the case, and if the return be deemed by them insufficient, may order a further and more complete return by said board or boards of school inspectors, and when such return shall by them be deemed sufficient they shall proceed with the consideration of the appeal, at such time or times, within ten days after such return, and in such manner, and under such affirmation, amendment or reversal of the action, order or decision of the board or boards of school inspectors appealed from, as in their judgment shall seem to be just and right, or if they may deem the appeal to be frivolous, they may summarily dismiss the same; but the decision of said board or boards of school inspectors shall not be altered or revised unless a majority of such township board not members of said board or boards of school inspectors shall so determine

Approved April 5, 1869.

A BILL to amend section thirteen, of chapter fifty-eight, of the Revised Statutes of A. D. 1846, the same being section 2256, of the Compiled Laws, relative to Primary Schools.

SECTION 1. *The People of the State of Michigan enact,* That section thirteen, of chapter fifty-eight, of the revised statutes of eighteen hundred and forty six, the same being section 2256, of the compiled laws, be and the same is hereby amended to read as follows:

(2256) SEC. 13 All notices of annual or special district meetings, after the first meeting has been held as aforesaid, shall specify the day and hour

and place of meeting, and shall be given at least six days previous to such meeting, by posting up copies thereof in three of the most public places in the district; and in case of any special meeting called for the purpose of establishing or changing the site of a school-house, such notice shall be given at least ten days previous thereto: *Provided*, That when any of the district board shall receive a request to call a special meeting, as provided in the preceding section, he shall forthwith give notice, as above provided, of said meeting, which shall be called in not less than six nor more than twelve days from the time the said officer shall receive the notice aforesaid.

Approved April 3, 1869.

PARTIAL PROGRAMME

OF THE

Fifth Semi-annual Meeting of the Michigan Association of Superintendents of Schools,

To be held at the Rooms of the Young Men's Christian Association, Main Street, Kalamazoo, July 13th, 14th and 15th, 1869.

(It is expected that the Programme will be nearly as follows, though not all the gentlemen designated have yet signified acceptance of their appointments.)

TUESDAY—EVENING SESSION.

8 o'clock.—Reading of Letters from Absentees, and Experience Meeting.

WEDNESDAY—FORENOON.

8.45—Opening, and Miscellaneous Business.

9.00—Paper on Examinatiou of Teachers—an Analysis of the 5th and 6th Sections of the County Superintendents' Act; Supt. J. S. GOODMAN, of Saginaw.

10.30—The Grading and Revocation of Certificates—Analysis of the 7th Section; Supt. EDW. CLEVELAND, of Van Buren.

AFTERNOON.

2.00—Visitation of Schools—Analysis of 9th Section, first clause; Supt. E. MUDGE, of Clinton.

3.15—School-houses and Grounds—Analysis of 9th Section, second clause; Supt. D. B. BRIGGS, of Macomb.

4.15—School Libraries—Analysis of 9th Section, third clause; Supt. C. T. BATEMAN, of Lenawee.

EVENING.

8.00—Public Address, "Our State Institutions," including an Analysis of the new Free School Act; Hon. JOHN D. PIERCE, of Ypsilanti.

THURSDAY—FORENOON.

8.45—Opening, and Miscellaneous Business.

9.00—Lectures, Institutes, and "such other means as he may devise,"—Analysis of 9th section, fourth clause; Supt. J. F. COVEL, of Montcalm.

10.00—School Attendance—Analysis of 9th Section, fifth clause; Supt. E. V. W. BROKAW, of Ionia.

11.00—Inspectors' and Superintendents' Reports—Analysis of 11th and 12th Sections; Supt. GEO. W. BROWN, of Ingham.

AFTERNOON.

2.00—Text-books and School Apparatus—Analysis of 13th Section; Supt. A. A. LUCE, of Branch.

3.30—Volunteered Papers and Topics for discussion, and Miscellaneous Business.

The reading of each paper will be followed by a discussion. Members are respectfully requested to send notice to the President of any paper or additional topic for discussion they will volunteer.

☞ The hospitality of the citizens of Kalamazoo has been generously tendered.

City Superintendents, Principals of Union Schools, teachers, and friends of education generally, are cordially invited to the sessions of the Association.

On behalf of the Executive Committee,

June 12th, 1869. H. A. FORD, *President.*

ADRIAN.—The new Central School building was opened, according to announcement, with appropriate exercises. The programme arranged for the occasion was as follows:

1. Music.
2. Prayer—Rev. W. H. WEBB.
3. Music.
4. Historical Sketch of Adrian Public Schools—Hon. C. M. CROSWELL
5. Music.
6. Historical Sketch of new Central building—F. R. STEBBINS, Pres't of the Board.
7. Music.
8. Impromptu speeches.
9. Survey of the building.

Prof. HUBBARD, formerly Superintendent, was called upon for a few remarks, in which he sketched the history of his connection with the Adrian schools. The whole passed off pleasantly, and the addresses of Messrs. CROSWELL and STEBBINS were models in their adaptation to the occasion.

IONIA COUNTY.—Supt. BROKAW writes us: "The State Institute held in South Boston, in this County, the 26th of last month, was very largely attended, considering the distance from the Railroad, and the fact of its being so late in the season that many teachers were detained, having already commenced their schools. The attendance was 88. This is, I believe, the first State Institute ever held in a District schoolhouse. Much credit is due to the people of South Boston for the interest manifested, and the warm hospitality extended to all."

MEMPHIS.—The Principal of the Union School, Mr. JAS. D. TURNBULL, has kindly furnished us with the following statistics of the Winter term: Whole number enrolled, 234; average attendance, 267; percentage of attendance, 85; number of visitors, 127; term, five months and a half. The average attendance was double what it was last year during the same months. The Spring term has opened favorably, the attendance being about the same as during the Winter term. Miss E. SHELP has charge of the Primary, Miss M. ALLEN of the Intermediate, and Miss LIBBY SABIN assists in the High School.

MILFORD.—A correspondent writing from this town speaks in high terms of the success of the schools under the management of Professor G. A. BROWN. "During the last term," he remarks, "the number of names upon the roll was 190; average attendance, 98 per cent. Of these an unusually large proportion were foreign scholars. But mere numbers is not all we may boast of. The discipline of the school, and the methods of instruction introduced into it by Prof. BROWN, are all admirable. He has a remarkable faculty of stimulating the minds of his pupils, and of interesting them in study. In short, we never had so good a school as at present. The exhibition given by the school at the winter term was a decided success. $100 was realized, which will be expended in procuring apparatus, &c. Not the least important benefit of Prof. BROWN'S coming among us is the awakening of a very general feeling in favor of a union between the two school districts into which the village is at present divided. This object may be regarded as practically consummated."

WHITE PIGEON.—The Winter term of the Union School closed April 2d. Whole number in attendance during the term, 283. The Grammar School Department is in the charge of Mrs. J. L. STONE, with Miss M. E. HINDS in the Intermediate, and Miss L. SMITH in the Primary. The term closed with an exhibition during three evenings, which passed off very pleasantly, the proceeds, about $100, being applied to the purchase of school furniture.

Number of pupils enrolled up to end of Winter term, 1,260; average daily attendance, 920; percentage of attendance on number belonging, 91.9; percentage of tardiness, 2.6; number of teachers, 24.

WYANDOTTE.—Prof. D. E. THOMAS, late of Dowagiac Union School, has taken charge of the Union School in this place.

YPSILANTI.—The public examinations of the State Normal School will take place on Monday, Tuesday and Wednesday, June 28th, 29th and 30th. On Tuesday evening, June 29th, the Rev. Dr. HOGARTH, of Detroit, will deliver a lecture before the Normal Lyceum.

THREE RIVERS.—Prof. STONE has been appointed Principal of the Union School.

LAWRENCE.—We learn that the Union School is doing well under the management of Prof. S. G. BURKED. The numbers in attendance are rapidly increasing, and the inhabitants take an unusual interest in the school.

We trust that County Superintendents will keep us thoroughly posted in regard to educational matters in their counties. We desire especially information respecting the results of examinations, attendance and lecturers at institutes, proceedings of County Teachers' Associations, etc.

MATTERS ABROAD.

AMERICAN.

NINTH ANNUAL MEETING OF THE NATIONAL TEACHERS' ASSOCIATION.—The next Annual Meeting of the National Teachers' Association will be held in the city of Trenton, New Jersey, on the 17th, 18th, 19th and 20th days of August, 1869.

A cordial invitation has been extended to the Association by the School Commissioners of the city, the members of the Common Council, the State Board of Education and many prominent citizens.

Under the kind and efficient direction of that well known educator and author, Prof. J. S. HART, Principal of the State Normal School, arrangements are being made for the liberal entertainment of the members, reducing the personal expenses of those who attend to the smallest possible amount. A warm and hospitable welcome awaits all who come.

Plans are being matured by which it is expected that reduced fare will be charged upon all the roads over which members will travel to the place of meeting.

The convenience of access to Trenton will secure a large attendance from the great Atlantic Cities, while the interest felt in this annual re-union of American Teachers, will bring full delegations from all the Western and Southern States.

In a few weeks the programme of exercises will be issued, presenting the names of some of the most highly esteemed and successful leaders in the great educational work, which is accomplishing such grand results in every section of the Union.

Teachers and all others interested are requested to announce this meeting in every practicable way—specially to have it noticed by the editors of papers in their vicinity.

The National Association of School Superintendents and the National Normal School Association will hold their annual meetings in Trenton, on Monday and Tuesday of the same week, thus bringing together not only the leading educators, but securing the discussion of topics of vital and practical concern to the great question of education in all its departments.

State, County or City Associations of Teachers sending delegations, are requested to report the number of persons, men and women, to Prof. HART, that proper arrangements may be made for their entertainment.

With reasonable effort this may be made the largest and most interesting educational meeting ever held in America.

L. VAN BOKKELEN,
President National Teachers' Association.

CATONSVILLE, MARYLAND, *April* 26, 1869.

MISSOURI.—We are indebted to Mr. W. T. HARRIS, Superintendent of the St. Louis Public Schools, for his annual report for 1867–8. The number of schools in the city is 38; total number of teachers, 315; number of pupils enrolled, 20,594; average number belonging, 13,972. In the report of Miss

ANNA C. BRACKETT, Principal of the Normal School, the Object Lesson system of instruction is severely criticised. She shows that in the first place it cultivates the memory as much as other systems; second, that its claim of giving the idea before the word, is unfounded since ideas can only be conveyed by words, and that in fact this system merely substitutes a new name for one the child already possesses—"a new *word* for an old idea"; third, that oral teaching is not so certainly better than textbook teaching, as the advocates of this system claim, since, among other reasons, many textbooks are the product of mature, experienced minds, while oral teaching is mainly entrusted to inexperienced girls of eighteen or twenty; fourth, that the axioms that synthesis must precede analysis, the concrete the abstract, the particular the general, are not founded in a true philosophy. The definition or the understanding an individual presupposes a "conception of the word expressing the genus which includes it." So in attempting to proceed from the particular to the general, special facts are made to assume an arbitrary importance. Thus in the method of map-drawing by triangles, circles or squares, the pupil is obliged to learn lengths of lines and positions of points which have importance only in the special system employed, when he might better spend his time in committing the latitude and longitude of prominent points which are geographical facts, possessing a real value. Again, we do not, in real life, uniformly reach the abstract through the concrete. The statement that "coal is black," is a broad generalization from a single instance, and employs the "general term coal," than which nothing can be more abstract. Whether substituting a general term for a particular one, can be considered as "proceeding" from one to the other, may be questioned. In the remarks of Mr. HARRIS upon the "Course of Study in the District Schools," there are some pertinent remarks upon the same topic. "The object lesson system, as enunciated by its advocates, completely inverts the relation of the knower to the known." His consideration of Pestalozzianism is also of great value, and may do much to destroy the blind hero worship with which to many regard its author.

TENNESSEE.—Prof. W. Z. MITCHELL, Superintendent of the Memphis City School, has favored us with the annual report of the Board of School Visitors for 1867–8. From this interesting document we learn that while the total scholastic population is 9,413, the number enrolled in the schools is but 2,884, the average enrollment 1,740, and the average attendance 1,573, while the number of seats in the schools is 1,440. The total cost per pupil is estimated at $30.38.

FOREIGN.

FRANCE.—A recent imperial decree commands that under officers and soldiers, who, in addition to the legal five years, serve another like period of their own free will, and are discharged with good character, shall have the preference in filling certain civil appointments. There are 7,800 of these places to be filled yearly, and among them a fourth of all the teacher and underteacherships becoming vacant during that time. Such vacancies are only to be otherwise filled when there is no military candidate at hand, and

when it would be injurious to keep them vacant till one would be found. The evil effects of this upon the progress of education in France can hardly be overestimated. It is probably hoped to revive by this means the fast expiring regard for the Napoleonic dynasty.

ERNEST RENAN recently delivered a lecture in the Theatre du Prince Imperial, in which he contended that education and instruction should be separated, and intrusted to different hands. After an historical survey of the systems of instruction in different times, he argued that it was the duty of the State to care for public *instruction*, but that *education* must be left far more than hitherto to the family. From the standpoint of freedom of instruction, he condemned compulsory attendance. RENAN laid great stress upon the influence of mothers, sisters and female teachers in earlier instruction as in education generally. "*Instruction*," he says, "will be given in school classes, *education* in the parental home."

An "Association for the Freedom of the Schools" has been formed in Berlin, and consists at present of 254 members with a capital of 552 thaler. Its object is to expose the injurious effect of clerical supervision on the schools, and the reactionary character of the governmental school books.

PRUSSIA.—Great preparations are made in Berlin for the meeting of the General Association of German Teachers. The assembling in the Prussian capital has a peculiar significance at this juncture. While Berlin is the centre of German intellectual activity, it is also the seat of the reactionists in educational affairs. Hence the meeting of such men as LANGE, LUEBEN and RIECKE with Minister VON MUEHLER and Prof. THILO is looked for with interest. Several lady teachers have sent in the titles of papers which they wish to read, and the Women's Union of Cassel sends two delegates with the avowed purpose of advocating the rights of women before the Association. Altogether it promises to be one of the most important meetings ever held by this body. We expect to give a full account of the proceedings in the September TEACHER.

AUSTRIA.—The new school law is now under consideration by the Assembly. It is bitterly opposed by the clerical party, since it takes the supervision of the schools from them, and makes them free to all denominations. On the other hand, the liberals feel that it is a half measure, leaving as it does, the religious instruction in the hands of the clergy.

The Michigan Teacher.

Vol. IV.—ADRIAN, SEPTEMBER, 1869.—No. 7.

Comprehensiveness of View.

I DO not think that the above words exactly convey my idea; and if I seem not to "stick to my text," I beg the indulgent reader to remember that I do not claim to have announced a text at all.

My design is to show the necessity to the student and teacher—a necessity by no means limited to the school-room—of COMPREHENDING (*con prehendens*) the subjects which we study and teach. Experience seems to show that but few see things in their length and breadth, their height and depth. We see a rose here and a lily there, but rarely discover that we are in a *garden of flowers*. Now a rose is sweet and a lily beautiful, but neither of them is a garden. But it may be objected that no eye can take in all the roses and lilies, all the fruits and spices in the garden of truth. Granted; but which is better, to glance at a shrub here and a tree there over a thousand acres, or to see *one* acre completely? And this latter result is quite possible to all. The method of study and thought which I advocate, is somewhat allied to that so ably advocated heretofore in the TEACHER, viz: the method of induction or generalization. But the two are not identical. The latter secures the materials for a house, and secures them in the best possible way, by bringing them a few at a time and in order, not a whole house at a load and indiscriminately mixed. The former would

Entered according to Act of Congress in the year 1869, by PAYNE, WHITNEY & CO., in the Clerk's Office of the District Court of the United States, for the Eastern District of Michigan.

occupy the mansion when built; not the cellar or the garret, not the dining-room or the parlors, but the HOUSE. I can but feel that we study and teach too much piece meal. I remember, in my district school days, a girl (and she was no dolt) who could add with readiness till she came to the *zeros*. She could tell instantly that $3+4+5=12$, but could not understand that $0+0+0=0$. And why? Simply because she did not comprehend the principles of notation and addition. She could grasp the idea of quantity, but not that of its absence. A friend, a former teacher, has just told me of a girl under his tuition, who could not see the difference between 2×4 and 4^2. She would add 4^2 to 4 and obtain 16, and would multiply 4 by 4 and obtain 8. She, in addition to the failure of the former case, did not grasp the idea of a factor. I recall the time when I could apply the Rule of Three to this and that problem, perhaps to twenty successive problems, but did not comprehend the theory sufficiently to master the twenty-first and twenty-fifth that fall under the principle. The student of grammar knows that the relative pronoun *that* is used instead of who and which, and knows so far when to use each as to say correctly, "She is the same lady that sang so sweetly," because this is one of the model sentences of his text-book; but while he is firm in his knowledge of the representative, he fails to comprehend the represented class. The reader of United States History may know that WASHINGTON, JACKSON, LINCOLN, have filled the Presidential chair, who yet does not see before his mind's eye the entire line of Presidents. The teacher of Geography knows the situation of New York, Philadelphia, Chicago, but perhaps never sees "from the exceeding high mountain" of comprehensive knowledge "all the kingdoms of the world in a moment of time." But it is needless further to multiply examples of this kind. These show the need of universal principles as opposed to rules; of perimeters and circumferences as opposed to points and broken lines; of outline maps as opposed to pictures. To say nothing of the exquisite delight of feeling that we have mastered a subject, I think there is more education (i. e. *discipline* and *development of power*) in one subject conquered than in a thousand studied in bits, and understood, if at all, in fragments.

Let us look at this as it refers to the almost universal method of studying and teaching the classics. Take the first oration of CICERO against CATALINE. The first section is assigned as a lesson. The Latin is pronounced correctly, translated accurately, and construed properly. The stately style and burning eloquence of the orator are thoroughly expatiated on, and correspondingly admired, and thus a most satisfactory hour's work is completed. The second section is assigned for the following day. The recitation begins with "*Decrevit quondam senatus*," and "*nos consules desumus*," with all that precedes, is to all intents and purposes a blank. The review is equally piece meal, only now the pieces are twice or three times larger than formerly. And if, when the oration has been finished, the student is aware that its great aim was to drive CATALINE into voluntary exile, that most desirable and necessary scrap of information has been derived from notes, and not from his own comprehensive and logical studying and thinking. I do not say that all study and teach thus. There are doubtless many noteworthy exceptions; but this is the way in which myself had the misfortune to be taught, and the disastrous effects of which I now see and feel. How many, amid the digressions and episodes of the Æneid, bear in mind that grand statement of its theme, "*Arma virumque cano?*" How many who read the Anabasis do more than barely read the text, remaining meanwhile in blissful ignorance of the date, the route, the object and the results of this remarkable going up? How many students of the Iliad, in the maze of unusual forms, of brilliant epithets, of divine interferences and achievements, never let slip from their fingers the thread fastened to that little pin, *Μῆνιν* – – – – – *Ἀχιλῆος*?

Now we do not, for a moment, advocate the neglect of paradigms and rules of syntax; much less would we slight etymologies; in fact, we would call no details "common or unclean." But is it well to "pay tithes of mint, anise and cummin, and omit the weightier matters of the law?" What would we think of a man who should go into St. Paul's, and allow himself to be so engrossed with the beauties of an altar, a pillar, or a statue, as to have no thoughts left for the cathedral in its magnificent unity? We do altogether too little THINKING, viewed in any

light you please, but the amount of COMPREHENSIVE thinking is appallingly minute.

This seems to be one most important characteristic of a genius, that he sees far and wide; and did we shape the lenses of our minds more for telescopes than for microscopes, we could accomplish much more for our pupils and ourselves. It requires a trained eye, and a steady hand, to hold up the plot and *dramatis personæ* of HAMLET, till they are seen through and through, and understood in their unity and variety. And unless we accomplish this, in some degree, at least, we have no right to claim that we enter into the spirit of the dramatist. We may admire those pat sayings of his, that have become proverbs, may retain them in mind and quote them with force and propriety, but as for comprehending his tragedies, we are very far from it. We may be assured "that one may smile, and smile, and be a villain," but this gives us little insight into the character of the mysterious Prince of Denmark.

No more can we rightly teach by proverbs and aphorisms. It is an axiom that no one can impart more than he knows; so if our knowledge is partial, our instruction can, by no possibility, be comprehensive. We must comprehend our subjects, and, what is of equal importance, we must comprehend, in its aim, theory, practice and results, the great science of teaching.

I hope to pursue this subject by showing some causes of a prevalent narrowness of views, particularly as regards education.

THE STUDY OF GRAMMAR.

ON several occasions the TEACHER has criticised the current methods of studying Grammar as being unphilosophical and therefore comparatively fruitless. We maintain that Grammar ought to be studied *inductively*, *i. e.*, language should be regarded as the subject matter which is to be examined. In this way facts will precede principles and rules, while in nearly all our books the contrary course is pursued.

The same principles apply to the learning of Latin or Greek Grammar as to English. In support of our views we quote below the opinion of eminent teachers and scholars:

"Nothing can be more certain than that the comprehension of grammar comes *after* the mastery of language; that the science of grammar (for there is such a science, and a noble one it is), is at once abstruse and difficult, and its deeply-seated metaphysical principles are best attained by an analysis of abundant linguistic facts already appreciated. Yet what do we do? We try to build up a boy's knowledge synthetically, by plunging him at once into a bewildering mass of intricate rules and anomalous exceptions.

"Well may Mr. HERBERT SPENCER speak of 'that intensely stupid practice, the teaching of grammar to children.' 'Grammar,' says HORNE TOOKE, 'is among the first things taught, and the latest understood.' Yet what happens? What *is* happening at this very moment to your little sons? They are being dragged through grammar as through a cactus bush—being taught in a way which always reminds me of Judges VIII., 16, where it says that 'Gideon took thorns of the wilderness, and briars, and with these he *taught* the people of Succoth.'"—F. W. FARRAR, Master at Harrow School.

"But a better and nearer example may be our most noble Queen Elizabeth, *who never yet took Greek nor Latin grammar in her hand* after the first declining of a noun and a verb; but . . . hath attained to such a perfect understanding of both the tongues, and to such a ready utterance of the Latin . . . . as there be few in number in both the universities or elsewhere in England, that be in both tongues comparable to Her Majesty."—ROGER ASCHAM.

"Already every subject dealt with is arranged in abnormal order; definitions, and rules, and principles being put first, instead of being disclosed, as they are in the order of nature, through the study of cases."—HERBERT SPENCER (Education, page 30).

"Rules are learned by the ear and by rote, without any digestion of the understanding; an habit is generated of accepting and using words without insight into their meaning,

and of applying principles in practice without a thought of their real nature."—Prof. HALFORD VAUGHN.

"I hardly know a single scholar who is not of opinion that the common system of teaching syntax by abstract rules conveyed in a difficult style . . . is a grievous waste of time, and what is worse, a waste of the learner's energy and readiness to be taught."—E. E. BOWEN, Fellow of Tim. Coll., Cambridge.

"The learning of grammar, with a view to conform to the genius of a language, is contrary to the dictates of nature and reason; since, as was shown, it places precept before example, theory before practice. *The learner must study the facts themselves, not the rules which have been deduced from them.*"—C. MARCEL (The Study of Language, p. 126).

"Particular grammar is an inductive art; and, in all such arts, we arrive at principles from facts—the more numerous these are the more general the rules. Custom is the law of language, grammar is only its generalization. *Thus is grammar made, and thus it must be learned, from the language; not the language from the grammar.*

"All the rules of grammar are in the written page; it is the teacher's office to bring them out, carefully avoiding abstract formulas which children understand so imperfectly and forget so easily. If the latter had previously learned the rules, they would be deprived of the exercise in observation, comparison, analogy, and generalization, to which reasoning by induction leads. Moreover, rules which apply to unknown facts, are pure abstractions, devoid of interest; whereas, the mind delights in classifying scattered notions, and discovering the reason of unknown facts.

"This inductive or analytical mode of studying grammar, similar to the intellectual process by which we arrive at a knowledge of natural laws, is the most rational and the most favorable to mental discipline. It consists in observing facts, comparing them, remarking their resemblances and differences, and afterward bringing into the same class all similar facts." (*Ibid, pp.* 188, 189.)

We trust that all teachers of grammar will consider the above quotations. Of one thing they may be assured, just so

far as these principles are employed in teaching any science whatever, will they be truly successful. This way of teaching cannot be learned from the grammars in use; but authors will write, and publishers print, rational systems of grammar, when teachers generally demand them.

MUSIC IN SCHOOLS.

BY C. C. MILLER, OF CHICAGO.

[Read before the Michigan Association of County School Superintendents, at Kalamazoo, July 15th, 1869.]

IN most of our schools at the present day singing is practiced to a greater or less extent. Teachers feel its importance as a harmonizer, as an aid to good government, and consider the time spent on it not lost, but really so much gained by increasing the efficient working power of the school.

It is probably not necessary to argue the importance of a knowledge of music both in school life and in after life, for it is not likely there is one present who does not regret that his education in that department is not better.

If then it is important that it be a part of the training of every one, the question occurs, when, where and how should it be learned?

The *time* undoubtedly is childhood, for it is found that of children who have an opportunity to learn young, but a small percentage fail, whilst of those who do not have the opportunity until later in life, the percentage of failures is much larger, and of those who do learn, few are found who ever attain to any considerable degree of proficiency.

Conceding that it should be a part of the education of all, plainly the *place* is in the public school.

Next comes the question *how*.

So far as music is generally taught in our schools, it consists entirely in rote singing. Now I claim that from the first day the child enters school he should be taught to read music—to sing from the notes. Let him have a short lesson each day of

ten to twenty minutes, and let it be put on the same footing with other studies, and you will find every singer will be a reader of music as well. The matter of reading music is *not* difficult for the youngest child in school to learn, providing the work be done gradually.

The musical education of most persons is something like this. They sing by rote in school and elsewhere, until fifteen or twenty years old, then perhaps they join a singing class and receive twelve, fifteen or twenty lessons in the course of each year. Is it any wonder they cannot sing readily from notes?

Suppose spelling and reading were taught in the same way. Allow the pupil to talk all he pleases until fifteen or twenty years old, then attend a spelling or reading school twelve to twenty nights each winter, and how many good spellers and readers would you find? Not many.

It is quite an undertaking to learn to spell the English language, but taken little by little each day, a young child readily accomplishes it. Just so with reading music, only the difficulty is not really so great, and one mistake of past years has been in considering it a matter fit only for the comprehension of mature minds. I can point you to schools of children not more than six or eight years old, who have not been in school more than six months or a year, and you may write upon the board an exercise in music that they have never before seen (it must be easy, of course), and they will sing it at sight as readily as they will read the word from the printed page.

But the objection may be urged that our teachers are not qualified to teach music. If you insist upon it as a regular study in school, you will find very many *are* qualified, and a very little attention on the part of others will give them all the preparation needed for good work. The theory is very simple, and if a teacher knows enough to sing the scale, he can succeed; for whilst the scholars are learning to read any piece or exercise, the teacher should *never* sing *with* them; so that if he understands the theory, it does not matter much whether he can sing a single tune.

The day is probably not so very far in the future when all our teachers will be good readers of music, and in the meantime

we must do as well as we can with the material we have, and not let our children grow up ignorant because the teachers are not the best. Probably not one teacher in fifty is really a fine reader, but would you on that account not have reading taught in the schools?

It may not be very visionary to suppose that the time is not far distant when the knowledge of music shall be as universal as the knowledge of Arithmetic, when the people will demand it, and no teacher will think of evading it. Already the work has begun in some places.

Will you not, County Superintendents, you who wield so much power in directing what shall be done in our schools—will you not wield that power to help make music a regular study in the common schcol, taught by the regular teacher of the school?

When this is done it will not be a light thing. It will affect the morals of the whole community. Your homes will be affected by it. Many hours will be spent in social music, which would otherwise be spent in dissipation and questionable amusements.

The worship of the great congregation will be affected by it, and where now the service of song in the sanctuary is performed by a few, having no *real* worship in it, the voices of all the people will unite as one great voice, and go up in real and heartfelt devotion.

LETTERS TO A YOUNG TEACHER.

MY DEAR SIR:—The two facts, that you were once my pupil, and that you have asked my advice with reference to what you should do to become a good teacher, encourage me to comply with your request in this attempt to give you the benefit of my own studies and experience.

I must first express my gratification that you have resolved to become a teacher by profession. Most young men who teach do so by a sort of compulsion. They take a school for a term

or two in order to secure the means to further some ulterior purpose—to buy a farm, or a span of horses, or to prepare for the law or for the ministry.

It is not at all singular that, in the past, few young men have voluntarily, and with deliberate purpose, chosen teaching as a life pursuit. Many have continued to teach for years, perhaps for life, but they have done so because the business which they took up under a sort of protest was found by experience to accord with their tastes, and to place them in possession of a moderate share of the comforts of life. Reason as we will about higher motives, the ever potent fact is that men will seek some employment which will be remunerative—which will secure the comforts, if not the luxuries of life. Until very recently, even professional teachers were poorly paid. When a boy, I marveled at the good fortune of a celebrated teacher who received seventy dollars a month! What could one do with so much money! Twelve years ago, the Principal of one of the largest Union Schools in Michigan received $1,200. This was a princely salary and without a parallel! I scarcely need remind you how all this has been changed. The salaries of the Principals of first and second class schools range from $1,500 to $2,500; while schools that used to pay $700 now afford from $1,200 to $1,400. On the whole, too, there has been an advance in the salaries paid to ladies. The standard price ten years ago was $200 per year! Now, in some cases, ladies receive $1,000 per year. In many cases, however, even now the wages paid to woman teachers are shamefully small. In some places school officers take advantage of what they conceive to be the necessities of teachers. They can board at home, and will therefore receive a pittance, rather than demand just compensation. Just as though labor had not an absolute value, independent of the fact whether one's board is paid for by one's self or one's father! But it is said, "This matter must be regulated by the law of supply and demand. If you are not satisfied with your wages, you may go. We have a whole pigeon-hole full of applications for places." Who are these persons who stand ready to step into the places of those teachers who have been tried and found of real value? In nine cases in ten, young girls fresh from school, some of whom will

probably become good teachers *after a few years' experience.* Imagine a manufacturer, saying to his workmen, "Leave my shop, you ungrateful grumblers. I can go into the street and pick up men who will be glad to receive half your wages." In blacksmithing, pin-making or cobbling, experience has value, but not in the teaching of our children!

Again, it is thought by some that teachers' wages are ruinously high. "$2,000 a year!" exclaims a pettifogger; "I receive but $1,000." No doubt. Some lawyers receive $5,000 a year. But this is a difference of brains. How natural to estimate the deserts of others by one's own! This doctrine of wages, both in its theory and practice, was recently illustrated in a town famous for its schools. A young lady, a teacher, who was paid at the rate of $275 a year, out of which she had to board and clothe herself, while passing down the defective steps of the school-house, fell and dislocated her arm. The joint was replaced by a physician, a member of the Board, noted for his extreme economy in the payment of teachers. In a few days this man presented a bill of $25 for his service of fifteen minutes! A problem in proportion at once suggests itself:

40 week's work, : $275 : : 1 day's work, (15 min.) : X

Yet this man, who does his utmost to keep the wages of teachers at a rate which can by no possibility board and clothe them with respectability, thinks he is a public benefactor! So saving of the public money! Taxes for the support of schools come from the pockets of poor people! We must use economy!

In vindication of a charge so palpably unjust, this physician referred to his *fee-bill*, or scheme of prices agreed upon by the fraternity; yet he is indignant because he has heard that teachers have an understanding with reference to the salaries they ought to have. Consistency *is* a jewel, certainly.

I ask no excuse for this apparent digression. I am heartily glad that my fellow teachers, both men and women, are to be better paid for their labor. Higher compensation will invite new laborers into the field, and will make it possible for those who are now teaching to gain that culture which comes from good libraries, from travel and from other sources which are

available only at considerable cost. Cheap teachers will of necessity teach cheap schools; and cheap schools are like cheap watches—a constant tinkering is necessary to make them run at all, and even then they are scarcely worth keeping in order. This increased remuneration has already had a noticeable effect. A very large proportion of the last class from our University have taken situations as teachers, and the Normal School is filled to its full capacity.

After so much that is preliminary, I gladly address myself to the task of presenting a view of teaching, which I think of paramount importance. I may perhaps express my idea of the matter in the fewest words by saying that teaching should be a *rational*, not an *empirical* art.

Whatever is done must be done by the use of certain means; and he who knows beforehand what means should be employed to secure certain results, proceeds *rationally*, *i. e.* with due regard to the relation between cause and effect. He proceeds *empirically* who chooses his instruments or methods *at random*. My belief then is simply this—that the teacher should first know what result ought to be reached, and then what means will certainly secure it. You no doubt admit that this view of the matter is a very reasonable one—in fact the only one which can for a moment be maintained; but practically you will find that it is an unknown, or at least an unappropriated truth. Teachers' methods are founded upon imitation or tradition. The progress of humanity is clearly involved in that of education; and all true progress in education will be made just as rapidly as the practice of teaching becomes rational.

My first wish for you then is that you may see that your road to success lies *in discovering and applying the laws which underlie educational processes.* Let this be your general method —your habit of mind, and you will have, in my opinion, the first essential element of success. W. H. P.

GEOGRAPHICAL SKETCHES.

POLAR EXPLORATION IN 1869.

THE number of expeditions already commenced, or projected, in the present year, for the investigation of the North Polar regions, is large. ROSENTHAL, a merchant who aided liberally the German expedition of last year, has two vessels employed in this work. The *Bienenkorb* carries Dr. F. G. DORST, to investigate the sea between Greenland and Spitzbergen up to Gillis Land, and to explore East Greenland. It sailed from Bremerhaven February 21. The *Albert*, provided for the contingency of wintering in the Arctic regions, sailed from the same port May 23. The scientific researches will be conducted by Dr. EMIL BESSELS, of Heidelberg. The expedition will attempt to circumnavigate Spitzbergen, to explore Gillis Land and the sea between Spitzbergen and Nova Semla, to penetrate as far north as possible, and to follow the coast of Siberia, investigating the localities containing remains of the Mammoth.

Mr. LAMONT, a well known explorer of these regions, author of "Seasons with the Sea Horses," sailed from England April 20, in a new steamer, the *Diana*, provisioned for two years. He proposes to explore the sea between Spitzbergen and Nova Semla, and also Gillis Land. He carries with him Dr. SMITH, to conduct scientific investigations, and an artist, named LIVESAY.

Capt. PALLISER'S expedition consists of a sailing schooner, with a small steam shallop on board, and will investigate the sea between Spitzbergen and Nova Semla. It sailed in June from Vadsö on the north-east coast of Norway.

The most important, however, is the "Second German North Polar Expedition," projected by Dr. PETERMANN. It consists of the steamer *Germania* and the sailing ship *Hansa*. Six men of science accompany it; Capt. KOLDEWEY, who conducted last year's expedition, commands one ship, and Capt. HEGEMANN the other. The vessels are provisioned for two years, and it is intended to winter over. They sailed from Bremerhaven June 15.

In addition to these five expeditions by water, a Russian land expedition, conducted by Baron MAIDEL, is at work. He started from Irkutsk August 13th, 1868, remained from September 12th to October 30th in Jakutsk, and thence traveled to Nishne-Kolymsk, where it would remain till March, 1869. It will investigate the Tschukchi peninsula and the country between Ostrowno and the mouth of the Anadyr, near which it will winter, and return in the spring of 1870. Among other things, the expedition will determine whether, as reported, Wrangel's Land (discovered last year by Capt. LONG) is visible from Cape Jakan.

The projected expedition of Dr. HAYES, by way of Smith's Sound, must be known to our readers through the public press. LAMBERT'S French expedition, by way of Behring Strait, has not yet sailed. A plan is also under discussion to establish steam communication between Norway and the north coast of Siberia.

HENRY VINCENT, the English orator, is probably known to some of our readers. He is one of the most eloquent lecturers whom it has been our fortune to hear. The following note recently received from him will explain itself.

28 MORNINGTON CRESCENT, REGENTS' PARK,
LONDON, July 6th, 1869.

MY DEAR SIR:—I beg to inform you that, owing to domestic affliction, my forthcoming visit to the United States will be my last. I come to take a personal farewell of my many generous friends. I hope to lecture in the West from January 1st, 1870—finally returning to England in the month of May. I have placed my lecturing engagements in the hands of Mr. C. S. CARTER, the Secretary of the Associated Western Literary Societies, at Ann Arbor, Michigan.

I am, my dear sir, most sincerely yours,

HENRY VINCENT.

Practical Hints.

1. Pshaw! What's the use of being so particular to have every answer a complete and well-formed sentence? It does n't pay. Ah! does n't it? If you have not been in the habit of requiring such answers in recitation, just try it for a day; and see if you are not surprised at the miserable work your pupils will make, in trying to express themselves completely. It is one of the best of language exercises, if the teacher is careful not to supply in the question a form in which the answer may be given. But, more than this, nothing serves so well to make an idea comprehended and remembered, as the clear and intelligent enunciation of it. It does pay to require every answer to be a complete and well-formed sentence.

2. "Miss S——, are you not ready to go home?" "No, not quite. I am detained by these children." Miss S—— is sitting with her cloak and hat on, and, by the impatience in her manner, plainly confesses that the "tables are turned," and that she is "kept in" by her scholars. If the scholars *must* be detained, she had better, by far, have kept herself busy until the law was satisfied, and not have betrayed the fact that she was punishing herself as well as them. Frequently teachers diminish their power by allowing personal convenience, or some other consideration, to interfere with the ordinary administration of the school. A teacher's power is lessened when the rogues have occasion to give thanks, that an engagement does not leave time for their proper punishment, or that the timely entrance of a visitor puts an end to hostilities.

3. It is not best, by any means, to correct a mistake always "on the spot." There is often more good done to a pupil by the complete and connected statement of an error, than by the lame and assisted statement of the attempted truth. The great object is to elicit independent, consecutive and well defined thought. After the statement is made, not in the midst of it, is the better time to call attention to an error. Neither is it well to tell a scholar his mistake, unless it is plainly beyond his own power to

discover or correct it himself. It should be the province of education to give to the mind such a discipline that it may carry within itself a regulator, as it were,—a power to detect and remedy its own errors.

4. One thing at a time. If you have called upon Mary to recite, and pretty soon see John out of order, either have Mary stop and wait until John is in order, or endure his annoyance until she is through reciting, and then attend to him. But on no account, even for a visitor, allow a scholar to recite, unless you are able to give your whole attention to him.

5. There are teachers who are in the habit of keeping scholars after school for some trifling offense, and dismissing them only when they "will promise not to do so any more." Promises, in regard to slight misdemeanors, should not, under any circumstances, be exacted under compulsion.

6. Some teachers are busily engaged during intermission in reading books or newspapers, or in embroidering or crocheting. Does it seem as if they were in earnest to do all the good they could? Is there no point in the lesson to come that needs looking at? Is there nothing about the room that ought to be seen to for the highest success of the school, and now rather than after the exercises begin?

7. What shall I do with that stubborn, indifferent boy? He seems determined to work right against me, and to receive as little good as possible. Is there not a pane of glass broken in your school-room? Does not the drawer to your table need a knob, or the lock on the door need a screw, or a bench need repairing? Call upon him, in your helplessness, to fix it, and depend upon him as much as you can. Let him do your copying and such work in your register as he can do. See what effect this will have. But do not call upon him at first, at least, to bring in wood, to take up ashes, or to sweep. — *Ohio Ed. Monthly.*

EDITOR'S DEPARTMENT.

A NEW EDITION of "The School Laws of Michigan, with Notes and Forms," has been prepared by the Superintendent of Public Instruction, and pamphlet copies have been forwarded from his office to every County Superintendent and School Director in the State.

The Act providing for Free Schools in this State went into effect on the 2d of July. The success of this system has been remarkably illustrated in Nova Scotia during the last four years, in which time the number of registered pupils of the province has increased from 38,000 to 88,000.

Hereafter, exchanges, books for notice, and all communications whatever relating to the TEACHER, should be sent to Adrian.

"Co-education of the Sexes" was sent to our subscribers last month. If any failed to receive a copy, it will be sent on application. We commend this essay for the *practical* argument which it unfolds, as well as for the lack of everything that smacks of the mere champion or partizan.

We wish again to call the attention of readers to the fact that, as we are unable to canvass for the TEACHER personally, we depend very largely upon the voluntary efforts of those who are in a position to aid us. If the Principals of Schools will secure the names of their assistants as subscribers, and if Superintendents will remember the TEACHER as they have opportunity, we shall be greatly assisted.

We shall be glad if all who are indebted to us will promptly remit their dues. Each amount is small, but the aggregate will go far toward meeting our bills for printing.

The Fifth Semi-Annual Meeting of County School Superintendents, held at Kalamazoo, July 13th, 14th and 15th, called together the majority of these officers now serving in this State, and some who were of the *priores*, but are now in other fields of labor. We confess to an agreeable disappointment in the composition of this body. The "new men" are better informed, more enthusiastic and devoted to their work, than we had expected to find them. The discussions developed a good deal of thinking and speaking talent, and the results of the convention augur well for the second term of our County Superintendency. The proceedings throughout were harmonious and cordial, and the reconstructed Association will evidently be a working body, that will make a permanent impress upon the educational system of Michigan. We shall secure some of the papers read for the pages of the TEACHER. Several important topics were left over for discussion at the winter meeting, which will be held in Saginaw City, during the two days next preceding the session of the State Teachers' Association, in holiday week.

The impressions made upon travelers from the East by our liberal provisions for schools, are well set forth by a correspondent of the Troy (N. Y.) *Times*, writing from Grand Rapids:

"The Western States are certainly getting ahead of the older ones in the matter of building school-houses and affording facilities for a substantial education. Almost every city and village in the State has its Union School at which boys and girls are fitted for college, if they wish to enter. * * * Indeed, I have not heard of a town which is destitute of its good school-house, and some of them have cost upwards of $100,000. One thing is clear: The people of Michigan take pride in their schools and school accommodations. In a conversation with Hon. W. A. HOWARD, a few days since, he gave me this fact, that he had allowed his daughters to obtain their education where they pleased. One of them, he said, had graduated at one of the Michigan Union Schools, and the other at the Vassar Female College in Poughkeepsie. He added that the education of the former was much the more complete and thorough. This fact shows the high character of the Michigan schools. As might be expected, a people paying so much attention to the cause of popular education, and appreciating it so fully, will be likely to have a due regard for their religious and spiritual improvement."

ZION'S HERALD, in a very illogical way, ascribes the prosperity of our University almost solely to Dr. HAVEN, and with as little regard to reason predicts that by his resignation a decline of prosperity is likely to follow. In the first place, it is well to keep in mind the fact that the University was in a high state of prosperity when Dr. HAVEN became its President, and that its popularity was largely the result of the plan of its establishment, which offers great advantages at unusually low rates. Except in a crisis of its history, the prosperity of a College depends far less upon the ability of its President than is generally supposed. They give tone and character to a school who have a daily personal influence upon its students; and we doubt not that the eminent Professors at Ann Arbor are entitled to a generous tribute of praise for what they have done for the University. But back of all this, as we have already intimated, is a powerful cause operating to make this school signally prosperous—the low rate at which great advantages can be secured. Therefore, while we have a profound respect for Dr. HAVEN, we do not regard the prosperity of the University as wholly, or even very greatly, due to him; and we doubt not that if the Regents continue to be as liberal as the law of the State allows, its prosperity will be assured.

The HERALD'S notion that a College cannot prosper except it be sectarian, is too wild to deserve serious attention. If the issue were between infidelity and christianity, the HERALD'S position would be well taken; but when it is between sectarianism and christianity, it is puerile. A College may be christian without being sectarian, and were the question between the two to be decided by facts, the advocates of sectarian schools would find little to comfort them. But if schools, to be successful must be under the direct care of the church, what shall we say of our common schools? Perhaps the HERALD will give us light on this branch of the subject.

PRACTICAL DEPARTMENT.

THE following rules relating to the art of questioning are taken from TATE'S *Philosophy of Education:*

1. Never put a question which simply requires a *Yes*, or a *No*, for an answer.

2. The questions should be given in such an order as to form a systematic and progressive development of the subject.

3. Children should be accustomed to answer questions in their own language.

4. The subject matter of a question should be sometimes varied in form, so as to require a different form of language in the answer.

5. The question should be restricted to the subject of examination.

6. The question should not contain any clue to the answer.

7. Simultaneous answers should never be taken as decided tests of progress.

8. Not the slightest assistance should be given to the pupil in framing his answer.

9. In order to give the pupils a requisite amount of confidence, the questions should be short and easy at first, and then as the examination advances, they should be gradually increased in difficulty.

DAILY PROGRAMME.

In a previous number we gave the form of a programme of studies. This is one of the first things to be done at the opening of school. Success depends upon an orderly arrangement of the work to be done. In Graded Schools each teacher should make out a daily programme, one copy to be posted in the school-room, and one sent to the Principal. Below we give several suggestions for making a scheme of recitations.

1. The time devoted to a subject should be in proportion to its relative importance, and its adaptation to the merits of the children in the particular class.

2. The time of recitation should be longer or shorter, according as the subject is less or more fatiguing to the minds of the pupils.

3. The order of recitations should have a special regard to the faculties that are brought into activity by them. No two lessons should come in succession which exercise the same faculties. Thus is would be erroneous to have a lesson in arithmetic follow a lesson in algebra.

FACULTIES CULTIVATED BY DIFFERENT STUDIES.

Writing and Drawing cultivate the perceptive and imitative faculties.

Mental Arithmetic cultivates the memory and the powers of conception and reasoning.

Arithmetic cultivates the reasoning powers and induces habits of exactness and order.

Grammar cultivates the faculties of abstraction and reason.

Geography specially cultivates the memory and the conceptive faculties.

Mathematics cultivate the reasoning powers chiefly in relation to the acquisition of necessary truths.

The Physical Sciences exercise the observing and perceptive faculties.

Poetry and Fiction specially cultivate the imagination, the taste, and the moral feelings.

Biography and History awaken the faculty of attention, and cultivate the memory.

Music cultivates the taste and refines and elevates the moral feelings.

Intellectual and Moral Philosophy cultivate all the higher faculties of our nature, and induce habits of abstraction and self-examination.—TATE.

Wherever it is possible, maps should be hung on the *north side of the room*, for the reason that the top of a map is associated with the north, the right side with east, etc. For the same reason pupils who are studying maps should be seated so as to face the north.

ENIGMAS.

1. See Virgil hys Eneïs Book ye fyrste and line 113 and you shall fynde

"Unam, quae Lycios fidumque vehebat Orontem,"

and severalle dayntie lines followynge. Havynge redde the same, well and *warily*, tell me, Gentle Reader, whether (in your judgment), ye sayde Orontes was hedde over ye Lycians solely and exclusively, or over other beside them.

2. Of what vehicle does Cæsar repeatedly speak?

ANSWERS.

1. It appeareth from line 116 of ye said Eneis, that poor Orontes, hedde over the Lycians, was no what less *hedde over heelis.* (*Volvitur in caput.*)

2. Of "his *omnibus*." Bell. Gall. "Subsequebatur *omnibus*," lib. 2, cap. 19; "*Ex* omnibus," cap. 29; "*cum* omnibus," 4, 21; "*in* omnibus," 4, 23; "omnibus" passim. Did it run without opposition? Not quite. "His omnibus *unum repugnabat.*"

Book Notices.

HN, New Practical and Easy Method of Learning the German Language. New York: *E. Steiger*. 1869.

Ahn's Method has an established reputation, and Mr. Steiger has conferred a benefit upon students of German in issuing the improved edition. The work consists of two parts, a practical and a theoretical. The first contains pronunciation, writing exercises, examples for translation, reading lessons, and a vocabulary. The theoretical part gives a brief but sufficient German grammar, and contains in 70 pages the best summary of the subject we have yet seen. In the vocabularies of the first part the pronunciation of each word is given on the plan of Prof Oehlschlager. This we know from experience to be a far better method than attempting to commit and apply formal rules of pronunciation. It in fact supplies as far as possible the place of the living teacher by doing just as he would—giving the pronunciation of each word as it occurs.

In this connection we would call attention to another enterprise of the same publisher, the issue of the "*Literarischer Monatsbericht.* A Monthly Record of German Literature." It contains a classified list of recent German books, announcement of forthcoming publications, and other literary intelligence. In addition to this it contains criticisms and original articles—among the latter a very able one on the copyright law of the United States. This useful periodical can be obtained free of charge by addressing E. Steiger, 22 and 24 Frankfort street, New York.

Hours at Home for September opens with an account of the life and struggles of Erckmann and Chatrian, the authors of the celebrated novels "Madame Therese," "The Conscripts," etc. In addition to the interest attaching to its subject, the paper amuses by the account which its author, H. Villard, gives of his own college life and share in the revolution of 1848 and '49. Prof. E. P. Evans contributes a sketch of the well-known pencil factory of the Fabers. In an article on the Diet of Brain Workers, Dr. G. M. Beard exposes some of the current fallacies on this subject. He shows that "brain workers need a better quality and larger quantity of nutrition than mechanics and laborers." In "Life at Great Ocean Depths" Dr. T. Edwards Clark presents a summary of the results obtained in the recent investigations of the ocean bed by Bailey, Huxley, Wallich, Sars, Pourtales and Wright. Mrs. Smith concludes her translation of Wellmer's "Neander's Last Birthday," and the novels "Compton Friars," and "Christopher Kroy" advance another stage.

Messrs. LEYPOLDT & HOLT, of New York, announce a series of "Works introductory to the study of German," by Prof. W. D. WHITNEY, Professor of Sanscrit and Instructor in Modern Languages in Yale College. It is to comprise two books: 1. A compendious German Grammar, which, in addition to the usual matter, will consider—the derivation and connections of the words—the construction of sentences—the correspondences between German and English, and their grounds. 2. A German Reader with especially full Notes and Vocabulary. The vocabulary is not to be a mere list of words and their meanings, but will also give the Derivations of words and of their meanings, and trace the correspondences between the German and English. The text of the Reader has already been issued in a preliminary edition, the Grammar will be ready in the fall, and the complete Reader with notes and vocabulary early next year. Prof. WHITNEY'S works will meet with an universal welcome, and in the Grammar especially we may expect something radically new—a really philosophical grammar —not a mere textbook, but a treatise on German Philology.

STODDARD'S COMBINATION SCHOOL ARITHMETIC. By JOHN F. STODDARD, A. M. New York: *Sheldon & Co.* 1869.

In our graded schools it is often impossible to have two distinct classes in Arithmetic—Mental and Practical—for the same pupils. Besides this, it is very doubtful if it is correct in principle to separate so widely in practice two things which are in reality so intimately united. Most pupils seem to think that there is a striking difference between Mental Arithmetic and Practical. In point of fact how do they differ? The first is more elementary, and, in making calculations, the memory is not assisted by written symbols. In each solution there is a logical and a mechanical process. The reason must first discover certain relations which subsist among the conditions of the problem, and must decide upon the combinations which must be made. The actual work must be done mentally, but each result may be held in memory or may be recorded. The only special advantage coming from Mental Arithmetic, as distinguished from written, is the cultivation of the memory; and so it has happened that this study has been pushed far beyond its proper limits, till pupils, and even teachers, have been led to believe that it is radically different from any other subject of knowledge. We shall be glad to see the study brought back to its proper place, and receive its legitimate share of attention, and for this purpose we commend the book above mentioned. The plan of its construction is simple—the alternation of mental and written exercises. Its use will save a great amount of time, and will reduce the number of books in the mathematical course. Our advice would be to banish the usual "Primary" and "Intellectual" Arithmetics, and substitute this. Pupils should be taught orally till they are capable of using this book.

We have received from Mr. JAMES VICK, of Rochester, New York, his "Fall Catalogue of Bulbs." Many of these are adapted for indoor culture during the winter, and are well worthy the attention of teachers desiring to

beautify their schoolrooms. Aside from its business purpose this catalogue contains much useful information on the culture of bulbs.

SEARING'S VIRGIL. New York: *A. S. Barnes & Co.* 1869.

This volume is a fit companion to BROOK'S Ovid, which we recently noticed. As we observe the many beauties of this edition, we feel like thanking both editor and publisher, for the expense and taste displayed in its preparation. The text seems faultless. The notes and illustrations are excellent, and the facsimile of a portion of an ancient MS. of the Æneid gives a peculiar value to this edition. Tinted paper and wide margins, in addition to the features already noticed, render this one of the choicest books of the season.

STEELE'S FOURTEEN WEEKS IN NATURAL PHILOSOPHY. New York: *A. S. Barnes & Co.* 1869.

This book is similar in execution and design to *Fourteen Weeks in Chemistry*, by the same author. It is valuable as it presents in small compass the great facts of Natural Philosophy. Many schools cannot give the time necessary to master a more elaborate treatise, and for such this book is exactly adapted. For use in Common Schools and in the smaller Union Schools it is just what is needed. We have recently used the Chemistry, and can testify to the value of the general plan of these works.

EDUCATIONAL INTELLIGENCE.

MATTERS AT HOME.

PROCEEDINGS OF THE SEMI ANNUAL MEETING OF THE ASSOCIATION OF SUPERINTENDENTS OF COMMON SCHOOLS.

Kalamazoo, July 13th, 1869.

Pursuant to the call of the Executive Committee, the Association of County Superintendents met in the Young Men's Christian Association rooms at 8 o'clock P. M. Was called to order by the President, Supt. H. A. FORD, of Berrien. Reading of Scripture and Prayer by Prof. PUTNAM. The following Counties were found to be represented, viz: Berrien, Branch, Calhoun, Clinton, Genesee, Hillsdale, Houghton, Ionia, Jackson, Kalamazoo, Kent, Lapeer, Macomb, Marquette, Monroe, Muskegon, Oakland, Saginaw, Shiawassee, St. Clair, St. Joseph, Sanilac, Van Buren, Washtenaw, and Wayne.

Letters from absent Superintendents and friends of education who had been invited, were then read by the President.

On motion, Supt. BENNETT, of Jackson, was chosen Secretary *pro tem.*

A discussion upon the results of the year was opened by Supt. FANCHER, of Calhoun, followed by other Superintendents present; among them were two representatives from the Upper Peninsula, Supts. YEMANS, of Marquette, and SIDNAM, of Houghton—the only gentlemen from that section of our State who have ever been present at any meeting of the Association.

On motion of Supt BRIGGS, a Committee of three was appointed to report officers to fill vacancies. Supts. BROKAW, SIDNAM and BETTS were named as the Committee, to report at the opening of the morning session.

Adjourned until 8.45 A. M. Wednesday.

MORNING SESSION—WEDNESDAY, 8 45 A. M.

The Association met pursuant to adjournment, the President in the chair. Devotional exercises, conducted by Rev. KENDALL BROOKS, D. D., of Kalamazoo College. Supt. BROKAW, chairman of the Committee to report names of officers to fill vacancies, reported as follows: Supt. W. T. SMITH, of Kalamazoo, for Vice President, and Supt P. M. PARKER, of Oakland, for Junior Secretary. The report was adopted by the Convention, and the Committee discharged.

Supt. BROKAW, on request, read the minutes of the last annual meeting.

On motion, all who were present, interested in educational matters, were invited to take part in the discussions of the Convention.

Supt. GOODMAN, of Saginaw, read an interesting paper on the Examination of Teachers, being an analysis of the 5th and 6th sections of the County

Superintendents' Act. The subject of the paper was extensively discussed by Supts. LUCE, of Branch, PARKER, of Oakland, WHEELER, of Washtenaw, CLARK, of St. Clair, CLEVELAND, of Van Buren, ANTISDELL, of St. Joseph, BROKAW, of Ionia, BETTS, of Hillsdale, FALLAS, of Kent. MUDGE, of Clinton, WILLARD, of Monroe, NIMS, of Sanilac, VINCENT, of Lapeer, BRIGGS, of Macomb, and Prof. PUTNAM

A paper was then read by Supt. CLEVELAND on the "Grading and Revocation of Certificates," giving an analysis of the 7th section of the Superintendents' Act. Supt. ANTISDELL opened the discussion of this subject, followed by Supts. CLARK, MUDGE and BETTS.

On motion, the Convention adjourned until 2 P. M.

AFTERNOON SESSION.

The Convention met as per adjournment, and resumed the discussion of the paper read by Supt. CLEVELAND. Discussion opened by Supt. GOODMAN.

Supt. BRIGGS presented a series of resolutions relating to the standard of qualifications for teaching, passed one year ago by the County Superintendents in Convention at Marshall. After quite a spirited discussion, the first of these resolutions was laid upon the table, and the balance re-affirmed and adopted. Next in order was a paper on "School Visitation," by Supt. MUDGE, of Clinton. Remarks were made by several of the Superintendents, earnestly endorsing the sentiments expressed in the paper.

Supt. BRIGGS, whose paper was next in order, was excused until to-morrow. Supt. LUCE, of Branch, read his paper on "Text books and School Apparatus," giving an analysis of the 13th section of the Superintendents' Act. In the discussion that followed some exceptions were taken to the ideas advanced by the writer.

Adjourned until 8 o'clock in the evening.

EVENING SESSION.

Dr. KENDALL BROOKS, of Kalamazoo College, was introduced, and delivered an address on "The Education of the Masses." On motion of Supt. YEMANS, a vote of thanks was tendered Dr. BROOKS for his able and very instructive address to the Convention.

The Convention adjourned until 8.45 to-morrow.

MORNING SESSION—THURSDAY, JULY 15TH.

The Convention met as per adjournment. The opening exercises were conducted by Supt. CLEVELAND.

On motion of Supt. BRIGGS, the Secretary was directed to procure a Secretary's book, in which to keep a record of the proceedings of the Convention.

It was moved that the Convention adjourn at 12 o'clock.

There being a vacancy in the Committee on "Superintendents' Records," on motion, the same was filled by the President; Messrs. BRIGGS and BENNETT were appointed. It was moved that this Committee have discretionary power in the matter of getting Record Books.

Supt. BRIGGS then read a paper on "School-houses and Grounds."

The subject of the Township System was advanced, and its adoption earnestly urged. A spirited discussion followed, in which Messrs. GOOD-

On motion of Supt. FORD (Supt. BRIGGS in the Chair), a Committee of three was appointed to make an elaborate report on the Township System at the next meeting of the Association. The President appointed as such Committee Supts. BRIGGS, PERRY, and VINCENT.

Supt. BROKAW moved the re-adoption of certain resolutions relating to the Township System, passed one year ago at Marshall. The same were referred to the Township Committee.

A paper was then read by Supt. BROKAW, of Ionia, on "School Attendance." A want of regular attendance was shown to be the source of most of the evils affecting our schools. The importance of this subject was urged by Supts. BRIGGS, CLEVELAND, GOODMAN, VINCENT, and FORD.

Prof. MILLER, of Chicago, in a brief paper, presented the subject of teaching Music in our schools.

On motion of Supt. YEMANS, of Marquette, the following resolutions were unanimously adopted:

Resolved, That we, in convention assembled at Kalamazoo, return our thanks to the editors of the MICHIGAN TEACHER for the receipt of the above journal free; and further, that the publication of the MICHIGAN TEACHER is to be encouraged by all friends of sound education, and we recommend the same to the patronage of each teacher in our several counties.

Whereas, We, the Superintendents of Common Schools of the State of Michigan, have attended with profit our semi-annual meeting, in the beautiful village of Kalamazoo, and have received the hospitalities of its citizens; therefore

Resolved, That we return our thanks to the citizens of Kalamazoo, and gratefully remember the kindness of those families by whom we have been entertained.

Resolved, That we thank the Y. M. C. A. for the use of their pleasant rooms, in which our sessio s have been held.

Resolved, That we thank the members of the press for reporting the proceedings of this Convention.

Moved that the Convention adjourn, to meet at Saginaw City two days previous to the meeting of the State Teachers' Association.

The Autum Series of State Teachers' Institutes is being held as follows:

At Lapeer, Lapeer County, August 23d.
At Portland, Ionia Co., September 6th.
At Lawrence, Van Buren Co., September 13th.
At Stanton, Montcalm Co., September 20th.
At Ithaca, Gratiot Co., September 27th.
At Rockford, Kent Co., October 4th.
At Owosso, Shiawassee Co., October 11th.
At Homer, Calhoun Co., October 18th.
At Romeo, Macomb Co., October 25th.
At Schoolcraft, Kalamazoo Co., November 1st.

Dr. E. O. HAVEN has resigned the presidency of the Michigan University, and takes that of the Northwestern University at Evanston, Ill., at a salary of $4,500. The Regents are in active search of a successor. Prof. J. H. SEELYE, at present Professor of Mental Philosophy in Amherst College, is believed to be the coming man, though several others are named.

The attendance upon the State Normal School during the last academic year was as follows:

Students in Normal Department,	342
Experimental,	151
Total,	493

The summer term closed June 30th. Prof. L. McLOUTH, late principal of the Battle Creek Union School, has been appointed to the department of Geography and Drawing, in the Board of Instruction, *vice* Prof. JOHN GOODISON removed. The next term begins on the last Tuesday of September.

BAY COUNTY.—The corps of teachers in the Bay City schools has been increased, and consists of a Superintendent, three male and 21 female teachers. The former (Prof. SCOVILLE re engaged) will be paid $2,500 a year, and Prof. MORLEY, Principal of the High School, $1,500. $18,000 will be expended next year in teachers' salaries, and $37,000 are appropriated for all school purposes. The First and Second Ward schoolhouses are being remodeled and materially enlarged. Prof. DWELLE will continue Principal of the Second Ward School.

BERRIEN COUNTY.—The Union Schools in Niles City closed June 24th. A class of seven was graduated. Principal C. B. THOMAS, Miss AMELIA DERBY, Miss A. M. TIBBETTS, and Miss N. E. COOLIDGE, have resigned their places as teachers, and Prof. GEO. F. EDWARDS, late of Ypsilanti Union Seminary, Miss SOPHIA E. WINTER, of Ticonderoga, New York, Misses F. H. DOUGLASS and S. E. SHOPE, of Niles, and Miss ELIZA STINES, of St. Joseph, have received appointments. A proposition to build a Janitor's residence on the school grounds was voted down at the annual meeting in July.

Superintendent FORD has published the Eighth Number of his *School Journal*. He will hold a County Institute in Buchanan about the last week in October.

Mr. GILES B. STILLWELL, a recent graduate of the State University, has been employed as Principal of the St. Joseph schools.

BRANCH COUNTY.—Coldwater schools closed June 29th. Five pupils were graduated, and addressed at length by Principal GEORGE E. CHURCH. A reunion of Alumni took place in the evening, when a "Welcome to the World's Work" was given to the graduating class by Supt. H. A. FORD, of Niles, and a poem read by Miss THOMPSON, of the High School. Prof. CHURCH remains another year, with increased salary.

CASS COUNTY.—Principal HERRING and Miss MATTIE BARTHOLOMEW have resigned their places in the schools at Cassopolis.

A celebration and basket picnic of the Day and Sabbath Schools of the county was held at Dowagiac, August 14th, under the supervision of Supt. CLENDENEN. Address by Rev. L. J. FLETCHER, of Grand Rapids.

Supt. CLENDENEN will hold a County Institute this fall, with Miss RICE, of the Normal School, as assistant.

CALHOUN COUNTY.—Prof. C. B. THOMAS, late of Niles, has been appointed Principal of the Union School at Battle Creek, at a salary of $1,800, *vice* L. MCLOUTH, resigned.

EATON COUNTY.—Supt. TOWNSEND has begun the publication of a neat little *School Journal* at fifty cents a year.

INGHAM COUNTY.—Repairs are being made on the Second Ward school house in Lansing.

The commencement exercises of the Michigan Female College took place June 31st and July 1st. The public examinations were held on the 31st, and the commencement exercises and junior exhibition on the 1st. The baccalaureate address was delivered by the president of the college Miss A. C. ROGERS, who chose as her subject "The Ideal Women." The exercises were highly praised by the press.

JACKSON COUNTY.—Three schoolhouses have been erected in Jackson during the past year, at a cost of $45,000.

KENT COUNTY.—A correspondent of an Eastern paper says: "In Grand Rapids there are five Ward schools, conducted in spacious, handsome edifices, and a parent institution maintained in one of the finest school buildings I have ever seen. It is constructed of brick made here, which closely resembles the Milwaukee article, though a shade lighter. The doors, staircases, desks, etc., are made of native woods, walnut and maple chiefly, stained and varnished, and nothing could be neater. Between 500 and 600 pupils are taught in the different departments; and still everything moves like clockwork. The schools are as orderly and quiet as a church. The building cost $50,000. And this is but one of (I don't know but I might say) hundreds in the State."

LAPEER COUNTY.—The Union School at Almont closed its second year June 25th, with appropriate exercises. Total number of students, 450; non-residents, 87. A. J. ITSELL has been Principal during the last year. Prof. E. T. CURTIS, late of Ypsilanti, succeeds him.

Supt. VINCENT will hold an Institute this fall, in which he will be assisted by the State Superintendent.

LENAWEE COUNTY.—Superintendent N. H. WINCHELL has resigned the charge of the Adrian schools, and Prof. W. H. PAYNE, late of the Ypsilanti Union Seminary, has been appointed in his stead, at a salary of $2,000.

The south hall of the college buildings at Adrian, burned a few months ago, has been rebuilt, and will be occupied this fall.

MONROE COUNTY.—Supt. WILLARD issues a stirring circular on "School Matters."

SAGINAW COUNTY.—A new High School building has been completed in Saginaw City. Its total cost, with fixtures and grounds, was $81,019.18.

ST. CLAIR COUNTY.—The Board of Education in Port Huron has ordered the erection of a two-story brick Union school-house in the Fourth Ward, and a large brick building on the north side of Clark river, at a cost of $25,000. The public schools closed June 25th, with four graduates. Prof. C. S. FRASER remains in charge, and is reported as growing constantly in favor.

ST. JOSEPH COUNTY.—We are indebted to Mr. J. R. DAVIES, Secretary of the Institute, for the following:

"The S. S. Institute, held at Three Rivers on the 22d and 23d of June, under the direction of the S. S. Association of St. Joseph County, had under discussion the subject of having the Bible read, and devotional exercises held in our District and Union Schools. It was the unanimous opinion of the Sunday School laborers present, of various denominations, that there is no valid reason for excluding the Scriptures from any of our public schools; that the wish of any one individual, or even any considerable minority of the district, ought not to overrule the majority; that, as the Bible is the great text book of morals and virtue, and as virtue is one of the most essential pillars of a free government, our teachers and school directors ought to insist upon g ving the Bible a place in every school in the land. It was resolved that this sentiment of the Institute should be made known, as there is a clamor from some individuals against such use of the Bible. Therefore the above record was directed to be sent to the MICHIGAN TEACHER with the request that it be published."

SHIAWASSEE COUNTY.—Prof. T. C. GARNER, of Corunna, late County Superintendent, was relieved of $83 by a burglar on the night of the 26th ult. The schools closed June 25th. The examinations were said to be "successful and creditable," and the schools "have attained an enviable reputation under the energetic superintendence of Prof. VAN DORN."

WASHTENAW COUNTY.—The graduating exercises at Ypsilanti Union Seminary occurred June 24th. The graduates numbered thirteen. Principal PAYNE, Professors EDWARDS and CURTIS, and nine other teachers, have resigned.

WAYNE COUNTY.—DUANE DOTY has been unanimously reëlected Superintendent, and ALBERT IVES Treasurer, of the Detroit schools. Plans and specifications have been submitted for two new school buildings of large size; also, proposals for enlarging the Trowbridge School, and completing the Duffield.

Mr. H. W. SABIN, a graduate of the State Normal School, has been appointed Principal of the Union School at Hancock, with a salary of $1,400.

Mr. G. W. CHROUCH, late of Tecumseh, has taken charge of the Dexter Union School.

Mr. GEO. C. BANNAN, a graduate of the Normal School, is Principal of the Belleville Union School.

Mr. M. DEVERO, a pupil of the Normal School, will teach at Ontonagon the coming winter.

MATTERS ABROAD.

AMERICAN.

The various National Educational Associations held their annual meetings this year at Trenton, New Jersey, during the third week in August. We have yet no account of their proceedings, but the promise of large and

interesting gatherings was very flattering when this issue of the TEACHER was made up.

The fortieth annual meeting of the American Institute of Instruction met in Portsmouth, New Hampshire, on the 3d, 4th and 5th of August. No report of the exercises has yet come to hand, but there were to be lectures by Secretary WHITE, of Massachusetts, Pres. CHAMPLIN, of Waterville College, and Profs. WOODMAN, of Dartmouth, MORSE, of Salem, and MASON, of Boston, and discussions on Secondary Education, Music in Schools, &c.

An exhibit of the educational work of the American Missionary Association among the freedmen, is given in a late number of *The American Missionary*. Number of teachers employed, 428—males 89, females 339; pupils in day schools, 23,062; average of daily attendance, 19,340; in night schools, 8,957; in Sunday schools, 21,869; in Normal classes, 326.

CALIFORNIA.—This young State is obtaining a reputation as the foremost in making stringent legal provisions for the thorough qualification of teachers, and in securing their enforcement. There are three District Boards for the examination of teachers—State, County and City Boards, with the School Superintendent respectively at the head of each. Twelve varieties of diploma and certificate are issued, in duration ranging from life down to one year. The examinations are extended and thorough—*all* examination papers being furnished by the State Board, and changed at every meeting. The requirements of qualifications for teaching are said to be much higher than in the older States. "The effect of these admirable provisions," says Superintendent PHILBRICK, of Boston, "has been to create among the teachers of California a stronger *esprit de corps*, a higher sense of the dignity and importance of their profession, and more enterprise in fitting themselves for their work, than we find among the teachers of any other State."

CONNECTICUT.—The last Report shows that the "Nutmeg State" is waking up in educational matters. The abolition of the rate-bill has had a particularly good effect; a large number of new school-houses have been built during the last year, and attendance upon the schools has been more general. The State Secretary urges the re-establishment of the Normal School, and a better system of school supervision.

DISTRICT OF COLUMBIA.—The first City Superintendent of Schools in Washington has just been appointed by the city government. Z. RICHARDS, Esq., a graduate of Williams College, enjoys the honor, at a salary of $2,500.

ILLINOIS.—We are indebted to Hon. J. L. PICKARD, Superintendent of Public Schools in Chicago, for a copy of the Fourteenth Annual Report of the Board of Education, a large volume of 321 pages, on tinted paper. The number of buildings occupied by the public schools is 38, having a total value, including sites, of $1,409,735. 401 teachers are employed. Total enrolment of pupils, 29,954; average daily attendance, 18,979.4.

IOWA.—The State Teachers' Association convened at Marshalltown August 24–26. Inaugural by Pres. BROOKS; addresses by Pres. WELCH, of the Agricultural College (formerly of Michigan), and Pres. BLACK, of the State University; and papers by Prof. KNAPP and others.

NEW JERSEY.—The recent Report of the State Superintendent gives the first information we have of the effects of the system of common schools in operation there during the last two years. It appears to be working well, though 119,119 children are not accounted for as in any kind of schools. Only 104,' 06 are enrolled in the public, and 16.755 in the private schools. The Superintendent recommends State appropriations in lieu of the present township tax.

NEW YORK.—EDWARD DANFORTH, A. M., formerly of Grand Rapids, now Deputy State Superintendent of New York, places us under obligation for a handsome copy of State Supt. WEAVER'S last Report. It indicates a thoroughly healthy condition of the schools in the Empire State. During 1868, $2,184,064.95 were expended for school houses, sites, furniture, &c. Whole number of children of school age, 1,464,669, of whom 970,842 attended school during some part of the year.

The State Teachers' Association met in Ithaca July 27–29. Over one thousand were in attendance, and the exercises were of great interest and value. As usual a good deal of axe grinding was done. *A lady* was elected one of the Vice Presidents, and a resolution passed requesting the Legislature to make provision for the election of females to school offices.

OHIO —The State Teachers' Association met at Cleveland July 6–8. W. D. HENKLE, author of the Algebra published in the STODDARD Series of Mathematics, has been appointed State Commissioner of Common Schools, *vice* Col. NORRIS, resigned.

WISCONSIN.—The State Teachers' Association met at Oshkosh July 6th, 7th and 8th. Addresses by Pres. KERR, J. C. CONVERSE, Prof. S. H. CARPENTER, CALVIN TOWNSEND, of Rochester, N. Y., Rev. E. C. TOWNE, of Chicago, and Dr. J. W. HOYT, of Madison; papers were read by A. F. ALDER, C. F. VIEBAHN, SAMUEL SHAW, and others. WARREN D. PARKER, of Geneva, is President for the year.

FOREIGN.

SOUTH AMERICA.—A thief, who robbed the church of San-Merced, has been condemned to serve three years as a schoolmaster in Copiapo.

SPAIN.—The Educational Bill laid before the Cortes by Sig. ZORILLA has 232 paragraphs. Private instruction is to be free from State or other official control; teachers have absolute freedom in teaching; those municipalities and juntas which distinguish themselves by activity in educational matters will receive special rewards from the State; ability to read and write is to be a condition for holding even the smallest office; each place must establish an elementary school; the State, provinces and cities will contribute to the support of the Universities.

GERMANY.—The female teachers of Berlin have formed themselves into an association, which has already held several meetings. Among its objects is the establishment of a register for vacant places. It is anticipated that this will form the nucleus for a General Association for German Female Teachers, meeting annually.

The Michigan Teacher.

Vol. IV.—ADRIAN, OCTOBER, 1869.—No. 8.

Grammar in the Common Schools.

BY PRESIDENT ABBOT, OF THE STATE AGRICULTURAL COLLEGE.

RAMMAR occupies a prominent place in the Common Schools. As soon as a pupil has learned to read, has had some instruction in Mental Arithmetic, and is ready to begin Geography, he takes up English Grammar, never to lay it down until his school days are over. If he is not of more than usual ability, or has not better instruction than ordinary, he soon hates the study. He finds it a slough of despond, and if he had his own way, would, like PLIABLE in BUNYAN'S fable, turn back and abandon it. But he does not have his own way. Grammar has possession of the schools, and that is nine points of the law. Then Grammar is said to teach the art of speaking and writing the language correctly. So the pupil is forced on, year after year, over what he does not understand, and what he hates.

Or the pupil may like the study as a field in which to show off his superior acuteness of understanding. Parsing is the field wherein the bravest of the scholars of a school try their skill against each other. Appeals are often made respecting some contested point, to some person thought competent to decide the case, and the victor feels as elated at the decision, as though PINDAR were about to sing his triumph at the Nemean games.

Entered according to Act of Congress in the year 1869, by PAYNE, WHITNEY & Co., in the Clerk's Office of the District Court of the United States, for the Eastern District of Michigan.

It cannot be doubted that some discipline of mind is gained by parsing, nor that a study of grammar helps one to criticise a sentence and determine whether it is grammatically correct. On the other hand, the education it confers is not all of the best sort, and it does not of itself enable one to speak and write correctly.

It is the constant use of good language that confers a mastery of it. A child brought up in good society where language is properly spoken, will learn to speak is correctly, and will so speak it without a knowledge of grammatical rules. I believe the teacher will do more towards securing the much desired result of purity of language, in his pupils, by correcting every variation from it, and causing them to repeat his corrections after him, many times over, day after day, than he can do by teaching them the rules of grammar. It must become the habit of the pupil to note and shun improprieties, and to use good language. Without this habit, a knowledge of grammar will not secure propriety of speech.

Besides, a sentence may be grammatically faultless, and yet far from correct.

"I reckon it was he who did it," is good so far as grammar goes, but poor English after all. Criticism of language should take a wider range than grammar covers, and yet the scholar's study of language commonly ends with this branch of study. I am inclined to think the value of the study as an aid to correct speaking is very much overrated, and that a part of the time devoted to it in schools would be better spent in the careful study of choice passages of English prose and verse, under less technical and more æsthetic views.

The discipline of mind gained from the study of grammar is, I admit, of a better sort than might be anticipated from an examination of most school grammars. This discipline arises from an acquired ability to see grammatical relations in spite of very incomplete definitions. However hard it may be to define a noun, and it is not easy to frame a definition suitable for a Common School grammar, students soon come to know a substantive element by a kind of instinct, so to speak. So with a verb, which takes, I think, many sentences of the Encyclopædia Britannica to define.

But there are some aspects of the discipline which are not so pleasing.

A good deal of the study of language, in parsing, is a simple appeal to authority. No matter how complicated a construction may be, if its like is found as an example under a definition or a rule, the problem of its construction and classification is considered solved. If his author gives the collective noun a rank in his classification equal to that of the common noun, the pupil does so; he makes subjunctive mode, acknowledges or dispenses with the passive voice in obedience to his textbook. Moreover, he looks no further into the form of word or sentence, than to bring it under its proper heading, according to his author. I well remember while teaching HOMER'S Iliad to a Junior class in a New England College, being found fault with because when asked about a certain construction of the Greek I had the student turn back and examine several preceding instances of like construction. I wished to show the student how he might, in a way, make his own grammar. He did not want to be at such trouble. He desired to be told plainly how it was, and have that the end of it. And this was a good and faithful student too. Now the English is full of perplexing constructions but under *authority* these lose all unruliness and appear plain as one would ask.

This satisfaction with authority leads the student to neglect other considerations that would elucidate the thought. BARRY CORNWALL says:

> "I love all things the seasons bring,
> All buds that start, all birds that sing,
> But chief—the violet."

Now the last "the" of this quotation can be parsed according to any of the grammars, and with such parsing the pupil is apt to rest content. But in how many of them will the pupil find anything which would make him ask after its particular force in the sentence,—that of making one violet represent the whole class. "The almond tree shall flourish;" does this mean one particular almond tree? "He is the Cicero of his age," is a sentence in which the article seems to transform a proper into a common noun. In "the good are happy," we have given to the

adjective a substantive use by the article. This substantive force bestowed upon the adjective *good* makes it denote only persons or things, while the verb *to be* is able to confer an *abstract* substantive force to the word, as *to be good.* We say, "An humble heart shall find favor," but exchange *an* for *the*, if we write "the heart that is humble shall find favor."

I have been told that such examination of language is more the province of logic than of grammar. However that may be, it seem to me that a careful asking after the real force of words in the examinations of passages of good English will serve to free the student somewhat from his habit of being content with an appeal to a rule or a definition.

Grammar is an abstruse study. It requires constant and conscious abstraction. The proper place, in my opinion, for its thorough study is after logic. I would treat it as I would Arithmetic, where I would have the study of Algebra intervene between the Common School and the higher Arithmetic. So I would have the pupils taught Grammar, to some extent, and then if his course of study can be sufficiently prolonged, take it up anew after such a work as THOMPSON'S Laws of Thought. For those who cannot take so full a course, exercises in the examination of selected pieces, combining with the critical more of the rhetorical and æsthetic, would, I believe, be better for the student.

As an example of the kind of thinking needed in grammatical study, take the following definition of a noun from the Encyclopædia Britannica: "Nouns are all those words by which objects or substances are denominated, and which distinguish them from one another without marking either quantity, quality, action, or relation." Or take the definition of FOWLER'S grammar: "A word which can by itself form either the subject or the predicate of a proposition, and which is also the name of an object, is called a substantive or noun." Surely a science which gives such definitions of the elements that are easiest to define, can better be learned after habits of abstraction are formed.

But cannot definitions be made easy? They can, by losing their truthfulness and use. For popular use a definition may be

considered such a description of anything as that the thing may be certainly known by that description. You take an easy definition in hand and apply the test. A noun is a name; then sweet is a noun because in the sentence "pears are sweet," the word gives a name to a quality of pears. A verb is a word used to express state or action of a subject. Then in the words *the contraction of the iron*, contraction must be a verb, for it denotes an action of iron. But you say, is *iron* the subject of an action here? From the same text book that gave me the definition of the verb, I find this definition of a subject: "A subject is a word or phrase denoting that of which something is said." Now if I am talking of iron and say that "the breaking was due to the contraction of iron," is not iron the subject, seeing it is the word denoting that of which something is said? Now I know that *iron* is not the grammatical subject of the sentence, but I believe my knowledge of the matter is not due to such definitions. Definitions instead of being easy are hard to make. An illustration of this fact may be found in the "*American Educational Monthly*" for April, 1868, where S. W. WHITNEY examines the different definitions given by grammarians to *person*, after quoting from DEAN FRENCH, a high authority, as follows: "Nothing is harder than a definition. While on the one hand there is, for the most part, no easier task than to detect a fault or flaw in the definition of those who have gone before us, nothing on the other is more difficult than to propose one of our own which shall not also present a vulnerable side." In grammar it is not definitions only, but classifications and the analysis of phrases that perplex.

But if training to the kind of thought that grammar requires is beneficial, why not seek it through grammatical study?

The reasons I would assign are, that a knowledge of logic seems to me to be essential to a true knowledge of grammar, and the further reason that there is no recognized authority in English grammar. What one author says another denies. A kind of discipline may be gained by prolonged study of grammar, but it will not be followed by corresponding real knowledge of grammar as a science.

A grammar of a language may be formed on either of two predominating plans. In the first, you catalogue all the

classes of words, their modifications, and ways of combination into phrases, clauses, and sentences, after some methodical way, and then proceed to indicate the use and force of each of these. This way predominates in the grammars in use. ANDREWS and STODDARD'S Latin grammar, ZUMPT, BUTTMAN'S Greek grammar, are on this plan. Few English grammars have been at all consistently made upon this plan, while it is the plan adopted by the greater number. Because the Latin has a potential mode, these works have made a combination of an indicative and an infinitive take a place in our grammars, as a distinct grammatical form of the English language. So with the passive voice. So in many other cases. Professor SILL'S grammar is by far the most consistent book of this kind I have seen, and I think it is greatly to be deplored that his grammar should anywhere be displaced by other and later comers, that treat positions of words as true modifications, and combinations readily resolvable as integral forms of grammar.

But there is another plan on which a grammar of a language may be made. This plan is to begin with the thought and emotion, and set forth whatever provision the language makes for expressing the same. This kind of grammar necessarily founds itself upon the laws of thought. Such a grammar would not in the first place ask how many were the forms indicating tenses in a language, but rather what divisions of time, and states of the action, the mind has need to express. It would then seek out the forms of speech by which expression of the thought could be made.

I am not sure but this latter method will in the end bring forth grammars that will supercede those made on the other plan.

Dr. KARL FERDINAND BECKER has in a number of books treated of language according to this new method. Professor N. PORTER, of Yale College, in giving a synopsis of BECKER'S views, says: "The true key to the philosophical analysis of language is, then, the analysis of thought. The only satisfactory explanation of the various kinds of words which language employs, *i. e.*, of the so-called parts of speech, is to be found in the distinctions which are made by the thoughts of man. The only satisfactory solution of the combination of these words into

sentences is to be sought in the necessary combinations of thought which the laws of man's nature impose upon him. Just so far as we can carry an analysis of thought, just so far we can carry our analysis of language. * * Every real law of thought, so far as it is revealed to consciousness, will be manifest in language. * * These principles in respect to language, determine at once the true idea of the grammar of a language, *i. e.*, of a grammar which is truly philosophical. Grammar is the science of a language. But there can be no science of a language which does not explain language by the laws of thought."

These ideas of grammar are only in part new, because grammar was, I think, long before BECKER'S time, called the off-shoot of logic. But the principles became fruitful in the analytical mind of the German philosopher. BECKER applied them to the German language. A small and excellent German grammar for Englishmen was published by BECKER in London, of which a second edition appeared in 1845.

A few quotations from eminent grammarians will show how widely the influence of these philosophical views of grammar are extending. And the force of these citations will be much increased by noticing the fact that as I have no philological library at hand, I am entirely confined to the few authors whose works I am fortunate enough to own. I do not doubt, had I more means at command, the evidence of the extension of BECKER'S influence might be made more manifest.

In the first volume of NORDHEIMER'S Hebrew grammar, I find the following: "The period has now gone by when a grammar was regarded as complete which exhibited the etymological and syntactical forms of language as phenomena peculiar to itself. In the present age that grammarian will not be considered as having duly executed his task who does not enter upon the resolution of the phenomena of the particular language he undertakes to discuss with the conviction that they are all necessary results of immutable and constantly operating laws, and with the intention of discovering and exhibiting these laws and of applying them to the illustration of the whole body of facts which the language presents; at the same time showing

for what reason, and in what manner, certain forms are made to serve certain grammatical purposes."

Dr. JELF, in the second volume of his Greek grammar, says: "Language does not consist in an arbitrary artificial arrangement of words, but is the expression of the previous internal arrangement of notions." The grammar is founded on the larger work of KUEHNER, and KUEHNER's grammars make open profession of being founded on the principles of BECKER.

The following sentences are from WINER's "Grammar of the Idioms of the Greek Language of the New Testament." He says: "The *rational* method of treatment which seeks out the ground of all idiomatic expressions (even of the irregularities) in the thoughts of the people, and of the authors, has effected an entire change in the study of the Greek language. No one would believe that the Hebrew, like every other language, admitted and required a rational mode of treatment. The rational view is now gaining ground." WINER proceeds to contrast the rational with the empirical mode of treating grammar, and gives, as one characteristic of the rational method, the showing "how deviations from the established laws of thought resulted from the spirit of the speaker or writer, or his modes of thought." He adds: "There is no stopping at the mere externals, but a reference is made of each form and inflection of the language to the thinking soul, and an effort to apprehend it in its existence in the mind itself."

KUEHNER's Greek grammars have already been mentioned, and no doubt much has been accomplished by them in the way of more philosophical views of grammar.

JOHN MULLIGAN, in his "Exposition of the Grammatical Structure of the English Language," a work which seems to indicate familiarity with the new method, says: "We commence by calling the attention of the student to the purposes served by language, the facts which render grammatical contrivances necessary in language, to the formation of propositions to convey our thoughts."

I have quoted only authors of high standing. Now a person may be a good practical surveyor without understanding the elements of Trigonometry, but he could no be said to have a

scientific knowledge of his business. So one may learn to speak the English language with tolerable correctness, but I apprehend he cannot have a scientific knowledge of it without some considerable knowledge of the laws of thought. And surely this is not a study for children, nor for the earlier part of a course of instruction.

As I have said before, the study of language should be commenced early and continued as long as school days or college days last. Exercises in reading, criticising, correcting and composing should be made much more account of than they are. Composition writing at random should give place to instruction in the art according to method. Elementary lessons in grammar should be given. But I am inclined to think the study of English grammar, as the science of the language, finds its best place in the later part of the student's course of study than he is likely to reach in most of our common schools.

LETTERS TO A YOUNG TEACHER.

II.

MY DEAR SIR:—In my first letter I ventured a brief statement of the view which I think should be taken of the art of teaching—that it is a *rational*, not an *empirical*, art, and that for this reason it should be practiced with strict reference to the principles which constitute the science of education. In ordinary cases it is not difficult to understand the relation which subsists between a given art and its correlative science. A science embodies and unfolds the principles or laws through which, or by means of which, a given result is to be reached. One fundamental idea in law is *invariable succession or sequence.* One thing happens in consequence of another, *i. e.*, there is a definite and permanent relation between the occurrences, so that the second may always be expected to follow the first. This relation is a law or principle, and a collection and exposition of such laws relating to a specific class of phenomena constitutes a science. All who practice any art whatever—who

bring about certain results by the use of means, must, *consciously* or *unconsciously*, employ scientific principles. The world of workers is thus divided into two portions. In one are those who proceed mechanically—by rule or imitation; in the other, those who understand certain laws, and use them intelligently to produce certain effects. Persons of the first class may do fair work with less intelligence than is possessed by a horse; those of the second must employ the faculties usually assigned to man—reason and reflection. A very simple illustration will show what I mean. One may divide $\frac{3}{4}$ by $\frac{1}{8}$ *mechanically* or *by rule.* Another may have forgotten the rule and may proceed by a logical analysis founded upon the relation of divisor and dividend. In what respect does a parrot, reciting a hexameter, differ from a man calculating longitude by rule?

Without further argument on this point, do you not see that just in proportion as one acts *mechanically* he is *unmanly*, *i. e.*, he leaves unused that which is his crowning glory, and submits himself to self-degradation? Assuredly, the more we cultivate reason and reflection, the more we rise in the scale of being. Observe this also. Machines never do anything new—they make no improvements.

You will say, no doubt, that the great mass of mankind are and will be mere imitators. Only a very few will work understandingly. This is true, but it does not invalidate or weaken my argument. The purposes of our creation will be best answered when all are able to know the *rationale* of processes which engage their attention.

You doubtless see the application of this argument to the subject under consideration. The teacher has to do with mind and character, and with the proper development of each. Now the mental faculties stand in certain relations to each other, and each to the various subjects of human knowledge.

Thus the faculties receive their maximum development at different periods of life. Perception is most active in childhood and youth, and memory and imagination are most perfect at this period. Reason, reflection, and abstraction reach their maturity much later in life.

Again, certain studies are best adapted to the culture of

certain faculties. The sciences cultivate the observation, mathematics the reason, geography the imagination. Still further, children, in whom reason and reflection are but imperfectly developed, must be governed by precept or rule; while adults may and should be obedient to reason. These relations are so many laws constituting the science of education and underlying its correlative art.

Now what I plead for is, first of all, a recognition of this truth, that *the practice of teaching should rest on the immutable laws which determine the relation of the faculties to each other, and of each to the various subjects of human knowledge.* You will pardon my enthusiasm, but I believe it is the practical recognition of this fact that the world is waiting for. One of the most lamentable facts in human history is the vast amount of misused and unused mental power. How shall it be economised? By properly educating it. To educate it properly and economically is to educate it rationally, *i. e.*, with strict regard to the proper means to be employed. The science of medicine is yet very imperfect, but suppose all the educated physicians were to be removed, and an army of quacks were allowed to bleed, and purge, and saw, *ad libitum.*

Under this view of the case how stands the business of teaching? Let me take your own case. I think it quite probable that your advantages have been fully equal to those of a very great majority of your fellow teachers in this State. These considerations occur to me. In teaching, you are dealing with mental phenomena. Have you ever studied them? What single book have you ever read on mental science? How many of the mental powers can you name and describe? What reason can you assign for your own methods of teaching and discipline?

Now imagine the case of men in any other *profession* who should be compelled to give such replies as you no doubt feel constrained to give. You would think it very absurd for a physician to declare that he had never used a single book on physiology, or anatomy, or pathology, and yet how does his case differ from yours? There are more than ten thousand teachers in this State. Of this number, how many have ever

spent a month in time or a dollar in money for the express purpose of learning the art of teaching? I have reason to believe that this is true of teachers generally. Even the Normal Schools of the country do nothing worthy of mention towards instructing their pupils in the principles of education. Yet it is just this kind of work which such schools ought to do. Our own Normal School is probably fully equal, if not superior, to most institutions of its kind. Yet it has never sent out a student who knew the merest rudiment of educational philosophy. It furnishes excellent instruction in various branches of knowledge, but it does not *teach its pupils to teach.* It is a good academy, but, except in name, it has no claim to be a school for the training of teachers. It is true there is connected with it a model school, or more properly, an *experimental* school; but *experimenting* with classes is not what pupil teachers need. Why should not pedagogy be pursued as a regular study, and the senior class, at least, be allowed to have a course of lectures on method? I imagine that the law creating this school never designed it to be merely an institution to give academic instruction. My purpose in this letter has been to point out the direction which I think your studies should take. I have all along presumed that you have an ambition to excel in your art, not to be a mere imitator of bad examples. In my next I hope to deal more directly with this question, and to indicate some specific topics which should engage your attention. W. H. P.

THE WORK AMONG THE PEOPLE.

DURING the summer meeting of County Superintendents at Kalamazoo, a suggestive article on "The Convention Business" was published in one of the local papers—written, we take it, by the principal editor, himself a life-long worker in educational fields—in which occurred the following paragraph:

"Schools have risen about as high as they can until some improvement is made in the qualifications of those to whom

is committed the prudential arrangement and control of our schools. Here is a defect which our Superintendents can not fail to have noticed, and one which they must find how to remedy."

The remark made a deep impression upon the mind of the writer at the time, as perhaps upon that of others in attendance, and reflection upon it has led to a considerable modification of his programme of work for the current school year. It is an indubitable fact that the teachers and educational workers generally are very far in advance of the people, and must pause or proceed more slowly in the work of reform until the masses can be brought to a better comprehension and appreciation of it. Progress is bottomed mainly on the dollar, and we must look to the people at the school-meetings for this. They can vote it or withhold it, as they will. Their votes are determined not merely by habit and tradition, but by their intelligent understanding of the nature and needs of the schools, or the contrary. The salaries, and, in great measure, the efficiency of the School Superintendents and teachers, depend upon the good will of the community toward their work. The introduction of apparatus, of improved text-books, better methods of teaching, reformed systems of school economy and discipline, must be largely modified by the disposition of the people toward them.

In an especial manner do we need to bring the school officers of the districts up to the "height of this great argument." The paper from which we have quoted further said :

"Certainly, it would not be a bad idea to have a Convention of school committees, or an Institute to train them for the duties of their office. There is a great defect here."

It wouldn't, indeed. The delinquencies of our school officers are too many and too well known to need mention. They constitute one of the unhappiest features of the school work in Michigan. It is next to impossible to organize and maintain a good school in the face of an indifferent, much more of a hostile Board, or even Director alone. "The Convention business," however, would not work in their case, as every Superintendent knows.

What shall be done to get the people abreast of the times in

educational ideas? The writer proposes to himself the following plan of operations:

1. First and most influential, the contribution of an article weekly to each of the papers of his county, for at least a year, and the circulation of an occasional *School Journal*, presenting the "new education" in the most attractive of its many-sided aspects. Few families in the county are without one or another of these papers. They will be read, re-read, talked over, and thought about, and it is hoped that the seed of a rich fruitage will be planted thus.

2. More frequent appointments of educational meetings, in which a thorough attempt will be made to interest school officers and parents. The careful presentation of the best theory and practice of education, with discussions of its condition, demands, and probable future, can scarcely fail to be of service.

3. The enlistment of the teachers in this campaign work. Examinations and Institutes will give best opportunity for this. The teachers are nearer to the people than the Superintendents, and their means of promoting progress are as numerous, if not the same, or so far-reaching.

4. More frequent reference to the higher matters of educational improvement in conversation with school officers and families. Many of them need but to hear in order to believe, and to believe in order to act, at least to encourage.

Brother Superintendents, fellow teachers, do you not feel the need of such work in your counties or districts? Gird yourselves, then, for a year's faithful duty *among the people* in behalf of "the good time coming," and let us see if a magnificent harvest does not crown the labor. H. A. F.

WALLED LAKES.

SOME two years since an article was published in *The Detroit Post* concerning Walled Lakes in general, and the one to be found in Oakland County, Michigan, in particular. The writer of the article, after describing one of the walls, proves—or rather would prove, were his statements correct,—that this eastern wall was built by some race of human beings, now passed away. As nearly as I can remember, the substance of his remarks is that the wall is built of stones laid in regular order, and with the evident intention of preventing the inundation of the surrounding country, which is below the level of the surface of the lake, and which would, should the wall be removed, be overflowed. He also stated that a plank road had been built upon its summit.

I had heard of this lake several times before, nor was my desire for seeing it at all lessened by the wonderful conclusions to which this writer, who had evidently beheld what he was describing, had arrived. It was with no small degree of satisfaction therefore, that I found myself, last vacation, in the immediate neighborhood of this same lake. Before an opportunity to visit it arrived, I was obliged to spend several days among people who had spent their lives within one or two miles of its shores. Of course, I made the lake a subject of constant inquiry. I did not find one person who did not believe the walls to have been built by man's agency, but I could not find any one who had found an instrument of any sort, or any one who had ever heard of the finding of any kind of instrument that could have aided in its structure, nor had any one ever found any human remains. All this began to puzzle me not a little, and at the earliest possible moment I paid the lake a visit. I approached it from the south. My road led through a high, rolling country, where are to be found some of the best farms in the State.

From this direction one comes in view of the lake about half a mile before it is reached. Looking across the lake, which is nearly circular in form, and about six miles in circumference,

it needs but a glance to learn that the country on the north is similar to that on the south side.

The outlet of this lake is near the western end of its eastern and western diameter, and is a small stream flowing through a fine farming country. On the east side of the lake is a marsh and tamarack swamp. This swamp, however, is not very extensive, and instead of being lower than the level of the lake is very much higher, and is drained *into* the lake *through* the wall described by the writer mentioned above.

I hope no other searcher after the curious will ever be so severely disappointed as I was upon looking at this wall. I found the remains of the plank road, but used as such no longer —an excellent dirt road occupying its place—and this was the only resemblance to what I had expected from the whole border of the lake.

The wall, which is such only in name, extends along the shore of the lake for a distance of 30 or 40 rods, and is an irregular mass of stones of all sizes, from the boulder of two or three tons weight to small sized gravel stones, intermixed with earth, and in many places covered with a deep soil out of which grow large trees of pine, cedar, basswood, etc. On the western side of the lake, however, is what might, without a very great effort of the imagination, be considered a wall, such as rude people might build. It is some three times longer than the eastern wall. It has an elevation in some places of four or five feet, and in several places has a nearly vertical front, the cause of which will be stated below. The marsh and swamp lying east of the lake were formerly a portion of the lake, or rather they formed a separate lake connected with the present lake by a strait whose width was about one-half the length of the so-called eastern wall.

If the reader will now try to place before his mind the picture of the lake, he will see that the land on the north and south sides is high and rolling; on the west side more level, and on the east it is low and marshy. The prevailing direction of the wind is from west to east, while in the spring of the year there is usually an eastern wind. The surface of the ground around the lake is thickly strewn with stones of all sizes. The waters of the lake for several rods from shore are but a few feet deep. I drove my

horse for three-fourths of a mile at a distance of three and four rods from the shore without finding the water deeper than his knees, but I not did find a single stone on the bottom of the lake, yet they must have been deposited there as thickly as on the land.

With these facts before his mind, any one familiar with ice action can account for the walls. During the winter the water has frozen to the bottom, imbedding the stones in the ice. The breaking up of the ice in the spring is always accompanied with a freshet. If left to itself the ice, of course, melted, and the stones it had lifted, as it floated, were dropped again to the bottom, but if the wind happened to be blowing the ice was driven and piled on the shore, and the stones were thus conveyed to land and heaped together. This action must have continued until all the stones at the bottom of the shallower portions of the lake had been conveyed to the shore, or dropped in deep water. Since then wave and ice have been beating and grinding against these masses of earth and stone until they have forced every movable particle as far on shore as possible. Wherever the shore was high, as on the west side, thosee stons and gravel and earth were piled *against* the side of the bank, thus making a wall-like front, but where it was low they were piled *upon* the land, just as they are on the eastern shore. In order to make more certain of this, I was careful to examine, and I found that on the side of the lake last mentioned the wall, or embankment, had received additions from both sides, thus showing that the water which once occupied the place where now is the marsh had furnished its share of the material in some long ago time.

After nearly a whole day's examination, I was unable to discover a single fact that would lead to the conclusion that man had anything to do with the construction of the walls; indeed, I found what is common to many lakes, on a smaller scale, and here of considerable magnitude only because the circumstances for such a structure were very favorable.

Leony Lake, in Livingston County, has a far more wonderful *wall*, for it has an embankment of earth shaped like a large U inverted. This wall is more than half a mile long, has an uniform height of about 3½ feet, and is 30 or 40 inches thick It is situated several feet from the water's edge, and is covered with fair-

sized "scrub oak." It forms a complete shelter for duck-hunters, and no human labor could make it more perfect.

This is also said to be work of some extinct race, but days spent in examining it has convinced me that no human hand was ever raised to fashion it. A single glance at the steep hillside a few feet in its rear, and the lake in front, and the *how* it was made is at once apparent.

Perhaps no one subject could be found about which so much of interest might be said as about the lakes of Michigan; yet there certainly seems to be no one who is willing to say it. Many of our lakes have no visible outlet; yet I, with some others, believe they have an outlet through a stratum of gravel beneath the surface of the ground. Again, many lakes lying within sight of each other have a difference in level of many feet. Three in Livingston County have a difference of five, seven, and twelve feet, and are not one mile distant from each other. Who will tell those of us who have no chance to examine for ourselves more about these facts?

S. S. Babcock.

Personal Culture.

A SCHOOL must be able to secure to a good degree for its pupils three things: acquired knowledge, mental discipline, and personal culture. Give knowledge without discipline, and you bestow on the mind means without the power requisite to their best use; grant the man knowledge and discipline without personal culture, and you make him little else than a shrewd and powerful savage.

Now all observation shows that our public schools secure these elements of education to their pupils in inverted order: first, knowledge; second, discipline; third, as lowest on the scale, personal culture. Knowledge may be inefficient, power may be counteracted; the cultivated and refined will always have its rank and influence. Leave the masses rough and boorish, and with all their acquired knowledge and strength, they will still be looked down upon—they will look down upon themselves.—*R. I. School Report*, 1869.

The Diurnal Motion of the Pendulum.

REPLY TO PROFESSOR SCHŒPFFER.

LEON FOUCAULT was fortunate in his discovery of the apparent change in the plane of the pendulum's vibration; but he was quite unhappy, not only in supposing it to be a real motion, but also in his way of accounting for it. And although Professor SCHOEPFFER has truly shown that the facts do not agree with FOUCAULT'S theory, he would have shown more wisdom by giving a satisfactory explanation of acknowledged facts than in forming the absurd conclusion that the earth does not turn on its axis, because FOUCAULT'S theory was unsound.

M. OZANAM, a distinguished mathematician of the 17th century (whose works were translated into English by HUTTON), says it would be considered the height of folly in a man to cause a large house to revolve, in order to carry the fire in a grate around a stationary fowl that was to be roasted, instead of turning the fowl itself. Yet the revolution of the sun, planets, and stars around the earth would involve a much more monstrous disproportion of means to ends, and would stamp the wisdom of Deity as inferior to that of men. Besides, the speed of the fixed stars would be so great as to require in the centre of their orbits, a body containing vastly more matter than the earth, to balance their tremendous centrifugal force.

FOUCAULT'S theory is not only liable to the objection urged by the Professor, but it can be shown that, according to the theory, a pendulum swinging at the pole, and another a few rods from the pole, would appear to change the plane of vibration in different directions.

The true cause of the phenomenon is so simple, it seems strange it should have escaped the notice of the discoverer. If a pendulum swings freely, the motion of the earth on its axis has no tendency to change the plane of the pendulum's vibration. The only effect can be to twist the string or wire once in one sidereal day, and the experiment has been tried of giving the string several twists in a minute, without producing any change in the plane of vibration.

If we suppose the pendulum to be located at the pole, and its vibration persistent in the same plane, the revolution of the earth brings the meridians successively into coincidence with this plane, the meridians having a common intersection at the point of suspension, and the motion of the horizon is the motion of the equator, viz., 360° in 24 sidereal hours. Therefore the pendulum will appear to swing towards every point in the horizon during the 24 hours.

If the pendulum is at the equator, the axis of the horizon coincides with the axis of the earth, and therefore the horizon makes no revolution, and the plane of vibration shows no change.

At all points between the pole and the equator, while the earth makes one revolution with the pendulum, that radius of the horizon which lies in the plane of the pendulum's meridian, describes the convex surface of a cone, whose vertex is in the center of the earth, and whose base is a parallel of latitude 90° distant from the pendulum. The amount of revolution of the horizon about the axis of the earth is therefore the solid angle at the vertex of the cone, and its measure is the arc of a great circle equal in length to the circumference of the parallel. Since, therefore, the circumferences of these parallels are in proportion to the cosines of the complements of the pendulum's latitudes (or, which is the same thing, to the sines of the latitudes), the apparent change in the plane of vibration is in proportion to the sine of the latitude. According to this method of computation, the apparent change at New Haven, Conn., is 9° 54′ per sidereal hour, supposing the latitude to be 41° 20′. This point is selected as an instance, because the result is confirmed by Prof. Loomis in his "Elements of Astronomy," published this year; he says the apparent change at New Haven amounts to *about* 10° per hour.

Professor Schœpffer seems also to be ignorant of another experiment, viz: of a weight falling from a high tower, which gives a direct proof of the earth's rotation, by falling eastward of a plumb line.

W. W.

Detroit, September 1869.

EDITOR'S DEPARTMENT.

POETRY has not often found its way to the pages of the TEACHER; but the following, from the distinguished Principal of the St. Louis Normal School, who is a true poet as well as very able teacher, is a gem which we should be glad to afford a more worthy setting. Its vivid local coloring will give especial pleasure to the great body of our readers. We extract it from the St. Louis *Journal of Education*, a neat quarto, published by our old time friend, Col. J. B. MERWIN.

VACATION.

BY ANNA C. BRACKETT.

When did we go to the Michigan woods?
I only know
That the air was sweet with the low white clover,
And the honey-bee, the wild free rover
Had never far to go.

How long did we stay in the Michigan woods?
I only know
That the fire-weed flamed crimson higher and higher,
Till only one blossom crowned the spire,
While below, the seeds lay side by side,
Ready to fly out far and wide
As the winds might chance to blow.

How long did we stay in the Michigan woods?
I only know
That the elder-blossoms grew white, then brown,
Then the scarlet berries hung heavily down,
Over the green below.

How long did we stay in the Michigan woods?
I only know
That the thistle flung open his armor green
Till his purple silken vest was seen,
Then changed to a fairy in gossamer grace,
That brushed with her silvery robes my face,
As she floated high and low.

When did we leave the Michigan woods?
I only know
That clusters of asters purple and white,
And the golden-rod, like a flash of light,
Had set all the roads aglow.

When did we leave the Michigan woods?
I can only say
That the yellow poplars trembled over
Where the weary bee hunted in vain for clover,
The morning we came away.

On a recent occasion, several members of the Board of Education in Detroit made themselves notorious in this wise. The Board has steadily refused to admit colored children to the public schools, although the state laws declare that no such discrimination shall be made. It has even withstood a decision of the Supreme Court, which decided in favor of the legislative enactment. At a recent meeting of the Board a motion was made by Inspector MILLER that Inspector BROOKS be instructed to appear before the Supreme Court on Tuesday morning, and assure the Court that its decision would be respected. During the discussion which followed, Inspectors VENN, ROMEYN, FINNEGAN, SCHUMM, WATSON and RUMNEY left the room, so that the Board was compelled to adjourn for want of a quorum. This was certainly a brilliant feat, and the public will be interested in observing which will win, the Inspectors or the Supreme Court.

Since the above was in type we learn that the Board has amended its rules, to accord with the decision of the Court.

Several schools in Central Michigan are doing an excellent work in normal instruction. In some counties large classes of teachers are drilled in the elementary branches, preparatory to work in the winter schools. The course of instruction usually occupies eight weeks of the fall term. We recently had the pleasure of lecturing before the Normal Class at Corunna, in charge of Prof. VAN DORN. Their instruction in all the common branches is most thorough, and will go very far to make success certain. We regard this practice as eminently useful, and hope it may soon become one of the universal customs. Such a course

of instruction is worth more than a dozen Institutes as they are usually conducted. In fact, the State Institutes, which were once so popular and really useful, have become almost a public nuisance, serving no useful purpose, except to use up public funds.

The leading teachers of Iowa are agitating the question of a State Normal School. This is a movement in the right direction, and we think it hardly possible that the next Legislature will fail to provide that which experience has shown to be indispensible to every successful school system.

We notice that some of the Principals and Superintendents of our larger schools make annual reports, showing the condition of their respective schools, and making suggestions as to future management. This is a good custom, and one to be encouraged. We have received interesting reports from Kalamazoo, Niles, Ann Arbor, Port Huron and Battle Creek.

New subscribers will please be particular in giving their address in full—Name, Postoffice, County and State. Many neglect to give the County, but in many cases it is very essential. There is no doubt that many persons fail to receive the TEACHER regularly, because of this omission.

The transition from teaching to Life Insurance is not so violent as many imagine. Those who teach in order to do good, and there are very many such, may find in Life Insurance a large field for their energies. We are fully persuaded that this is one of the most benign institutions of the age—diffusing its blessings with a liberal hand, and sustaining those whom death has placed in straightened circumstances. We think it wise economy for teachers to insure as largely as their means will allow. It is easy to find companies which are reliable, and which do business on favorable terms. Our long time friend, FRANK PEAVEY, of the New England Mutual, will serve his former co-laborers with entire satisfaction.

PRACTICAL DEPARTMENT.

WE suggest to our readers the following practical lesson in *Pedagogy*. Connect by lines each of the words in the middle column with certain ones on either side in such a way as to indicate their mutual relation. Thus with what faculty and what habit will you connect the study of History? For practice, the words may be copied on a larger sheet of paper, or on a blackboard. We would suggest that conductors of Institutes might make a good use of this by printing the arrangement on cards, and then requiring each teacher to draw lines of relation.

HABITS.	STUDIES.	FACULTIES.
	Writing.	
Attention.	Moral Philosophy.	Reason.
	Geography.	Perception.
Order.	Zoology.	
	Arithmetic.	Memory.
Neatness.	Grammar.	
	Algebra.	Abstraction.
Exactness.	History.	Imagination.
Right doing.	Mental Philosophy.	Taste.
	Music.	

Teachers differ much in their ability to inspire their pupils with mental activity; and yet the teaching that does not do this is worth but very little. Routine is fatal to this most desirable thing. Some new question which requires thought and excites interest, is one ever efficient means to this end. As an example of what we mean, try the following old question with a class in Arithmetic:

"A boy bought a cap for three dollars, and offered a ten dollar bill in payment. The merchant, unable to make change, took the bill to a bank, and on his return gave the boy seven dollars. The banker soon found the bill to be counterfeit, and caused the merchant to redeem it. How much did the merchant lose by the transaction?"

Questions of this kind may be devised in every study. In Grammar unusual idioms may be proposed for explanation; in Geography, questions relating to latitude, climate, etc.; in History, additional facts to be found in other books; in the Ancient Languages, questions in mythology, history, etymology and geography.

Which is to decide whether a pupil is to pass a study or not; the average of his recitations during his course of instruction, or merely the result of his examination? It often happens that pupils whose recitations are uniformly good, fail on examination day; and sometimes those whose recitations are usually poor, distinguish themselves when examined. Oftentimes examinations are, at best, mere farces. We have known a large class of ladies and gentlemen to be examined in Mental Philosophy in *forty minutes!* On the average each pupil had no more than two minutes to exhibit his knowledge of a subject which had occupied his attention for *twenty weeks!* And yet such examinations are often thought to be brilliant affairs, reflecting great honor upon pupils and teacher. We would say that the fair test is *the average of all the recitations.* If the pupil is made to understand from the start that each recitation is to contribute to the final result, he will feel an inducement to make a good recitation each day. Under the other mode, he may easily persuade himself that however poorly he may do usually, "something will turn up" to his advantage on examination day.

In view of the above statement, it is pertinent to inquire into the object of a final, public examination. It is to impress the pupil with the fact that he is to be held responsible for a mastery of the whole subject.

THE ADDITION OF FRACTIONS.

DEMONSTRATION.

I wish to add several fractions, as $\frac{1}{2}$, $\frac{2}{3}$, $\frac{5}{6}$, $\frac{7}{8}$.

As these fractions are not of the same denomination, they cannot be added till changed to equivalent fractions, having a common denominator. A common denominator must be a number which will contain each of the given denominators; and that this number may be as small as possible, I will use, for this purpose, the least common multiple of all the denominators (2, 3, 6, 8), which is 24.

As the denominator of the first fraction is 2, it must be multiplied by 12, in order to make it equal to the common denominator; but in order that the value of the fraction may not be changed, the numerator (1) must also be multiplied by the same number, making $\frac{12}{24}$. For a similar reason, both terms of the second fraction, ($\frac{2}{3}$), must be multiplied by 8; of the third, ($\frac{5}{6}$), by 4; and of the fourth, ($\frac{7}{8}$), by 3, making the following result:

$$\left.\begin{array}{l} \frac{1}{2} = \frac{12}{24} \\ \frac{2}{3} = \frac{16}{24} \\ \frac{5}{6} = \frac{15}{24} \\ \frac{7}{8} = \frac{21}{24} \end{array}\right\} = \frac{64}{24} = 2\frac{16}{24} = 2\frac{2}{3}.$$

As the fractions in the second column have similar denominators, they may be added, making $\frac{64}{24}$.

Hence to add fractions which have different denominators.

Multiply both terms of each fraction by such a number as will make its denominator equal to the least common multiple of all the denominators. Then add the resulting numerators, and place their sum over the common denominator.

Book Notices.

THE FIRST BOOK OF ENGLISH GRAMMAR. By H. D. WALKER, A. M. Philadelphia: *Claxton, Remsen & Haffelfinger*, 1869.

This book was not *made*, it *grew*. At least so we are told in that part of the book which no one is supposed to read except the reviewer—the preface. We think the mere fact that a book has thus been the result of years of practical experience in the schoolroom, is very much in its favor. It is certain that its plan, whatever it may be, is practicable. Books, and especially grammars, are often made to order, like boots and congressional speeches.

This grammar is entitled to further consideration from the unusual fact, that it differs from most books of its kind in its plan. Instead of the hopelessly dull definitions and abstractions which choke up the way of the learner, after the usual manner, *Part First* is wholly devoted to correcting errors in colloquial English. Here is a recognition of the fact, often overlooked, that *usage is the law of language*. We highly approve of this part of the work. Such study cannot begin at too early a period of school life. In this way too, instruction is first given in the *concrete*. *Part Second* begins with the sentence and its analysis, thus reversing the old order. This is entirely philosophical. The sentence, not the word, is the *grammatical unit*—the whole which is first to be comprehended and then analyzed into its parts. (Stewart's Phil. Essays, p. 297; Hamilton's Logic, p. 437.) With *Part Third* we are not so well pleased. We think the symbols employed are cumbersome—rather a hinderance than an aid to the pupil.

Q. HORATI FLACCI OPERA. By THOMAS CHASE, A. M. Philadelphia: *Eldredge & Brother*, 1870.

We have already expressed our approbation of this new classical series. The *tout ensemble*, text, notes, typography, paper and binding, is admirable. We are glad to notice that this series is coming into use in our schools. The enterprise of the publisher, and the patient scholarship of the author, ought to be thus rewarded. Just now there seems to be greater activity in the publication of works relating to the dead languages than at almost any other time. The educated and educating public are seemingly very perverse. Why *will* they disregard the warning voice of those who declaim against heathen literature? Seriously, we think it will be an evil day when the *Ars Poetica* is not preferred to a chapter in conic sections, or, we may add, to Mr. FROUDE'S Edinburgh Address.

DRAWING FROM MEMORY. THE CAVÉ METHOD. By Madame MARIE ELIZABETH CAVÉ. New York: *G. P. Putman & Son*, 1869. Adrian: *C. Humphrey & Co.*

How unsatisfactory is a verbal description, be it as perfect as possible, of anything we have *seen!* But how readily are past associations revived by even a drawing in outline! It is rightly deemed an essential in education to be able to give an intelligible description in *words* of an object of sight. Why should not that art be held in high esteem, which can reproduce more easily and infinitely more perfectly what has been seen, but is now held in memory? Drawing is as much an essential in education as writing. Instruction in this art usually goes no further than the ability to copy an object before one's sight, more or less perfectly. But as the writer records his thoughts as they are held in memory, so ought a conception, or an idea, to be recorded on paper.

In the words of Madame CAVÉ, "drawing from memory is having one's thoughts, the expression of that thought, at the point of his pencil, as the writer has his at the tip of his pen."

The plan of this treatise is indicated in the foregoing remarks. The pupil places gauze or tissue paper, attached to an oblong frame, over a model—as the picture of a hand or foot—and then makes a tracing with charcoal. This is called a proof. He next sketches directly from the model, using the proof, as occasion requires, to correct any mistakes which may have been made. Then the model is removed from sight, and a copy made from memory.

FELIX COITEREAU, Inspector General of Fine Arts, has made a thorough examination of Madame CAVÉ'S system, and in his report to the Minister of the Interior, commends its simplicity and practical value. This book gives a full exposition of the system in a series of letters, written in a charming style. We take great pleasure in commending to our readers a plan for drawing which is perfectly simple and productive of the finest results, in the hope that this study may be introduced into all Intermediate, Grammar and High Schools in Michigan,

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A. DENHAM & Co., and DAVID G. FRANCIS, of New York, send us their September Catalogues of New and Old Books. Rare works of great value, Classical, Historical, and Scientific, may often be bought in this way at a moderate cost. From this source we have secured some of our treasures, among others, Lucan's Pharsalia (Strawberry Hill edition), Harris' Hermes, Middleton's Cicero, Budæu's de Asse et Partibus Ejus (Aldus, 1522).

MASON BROTHERS are about to retire from the publishing business, owing to the death of one of the partners. This is an old and well known firm, which has given a large list of excellent works to the public—both of school and college text books. SHELDON & Co., already an extensive book firm, have bought out the school book interests of the MASONS. This will make a fine addition to their already large list of publications, and increase their now enviable position as school book publishers.

LITTELL'S LIVING AGE (Boston: *Littell & Gay*) commends itself to all who wish to read what is choicest in foreign literature.

THE AMERICAN AGRICULTURIST for October is at hand, with its large and well assorted variety of items, interesting and instructive to every one of whatever occupation he may be. The premium list for 1870 offers many inducements to subscribers, and those who will act as canvassers. This monthly should have a place in every family.

Our young folks being shut in-doors by frost and winter's approach, will wish for something to supply the place of out door amusements—now impracticable. The monthly visits of OUR YOUNG FOLKS, THE STUDENT AND SCHOOLMATE, THE LITTLE CHIEF, and other periodicals for children, will supply the lack of out door sports in occupying the attention of children, and giving instruction and amusement at the same time.

PUTNAM'S MAGAZINE for October contains a feast of good things as usual. Among the articles we notice "Cinella I," by EDWARD SPENCER; "The Last of the Troubadours," by Pres't HENRY COPPEE; "Old Boston and St. Botolphs," by Mrs. NATH'L HAWTHORNE; "Treasure Trove;" "Childhood;" the romance of "To-Day" continued, etc., etc.

THE NORTH AMERICAN REVIEW (Boston: *Fields, Osgood & Co.*) compares favorably with the great English Reviews, and is worthy of patronage by all who have a taste for what is more profound in current literature.

THE NATION (New York) presents, each week, a complete mirror of what is new in politics, literature and social science. It is always candid, dispassionate, considerate.

THE NURSERY (Boston), if possible, improves with age. For a child's magazine it is nearly faultless. We are glad to know that the project of a sensible, enthusiastic woman, has become so completely successful. Miss SEAVERENS deserves the thanks of all who love little children.

BOOKS RECEIVED.

From *G. P. Putnam & Son*: New York. BENEDICITE. For sale by Webster & De Forest, Adrian.

From *Wilson, Hinkle & Co.*: Cincinnati. RAY'S ASTRONOMY. SCHUYLER'S LOGIC.

From *Leypoldt & Holt*: New York. MEMOIRS OF A GOOD FOR NOTHING. THE MAN WITH A BROKEN EAR. WHITNEY'S GERMAN GRAMMAR.

From *S. C. Griggs & Co.*: Chicago. HARKNESS' ELEMENTS OF LATIN GRAMMAR. EVANS' HISTORY OF GERMAN LITERATURE. For sale by E. Sampson, Ypsilanti.

From *Adams, Blackmer & Lyon*: Chicago. PALMER'S SABBATH SCHOOL SONGS. GRIFFITH'S DRILL BOOK. EGLESTON'S SUNDAY SCHOOL MANUAL.

EDUCATIONAL INTELLIGENCE.

MATTERS AT HOME.

R. C. B. STEBBINS, our Deputy Superintendent of Public Instruction, in a recent contribution to an Eastern journal, gives the following statistics of the Michigan Colleges: "The number of students reported in our higher institutions the past year, is as follows: University, 1,223; Agricultural College (many rejected for want of room), 92; Normal School (average attendance), 224; Adrian College (Methodist), 242; Albion College (Episcopal Methodist), 263; Hillsdale College (Free Will Baptist), 235; Kalamazoo College (Baptist), 102; Hope College (Dutch Reformed), 96; Olivet College (Congregational), 295."

Of the primary schools and State educational funds, he says: "The average length of the schools the past year was six and two-tenths months. There were employed 2,095 male teachers, and 7,535 females; at average wages per month to the former $47.98, and to the latter $21.93. To this should be added the board of a large portion of the whole number. There are 72 stone school-houses, 416 brick, 3,609 frame, and 619 of logs; the whole, including sites, valued at $4,384,081. There was expended on buildings during the year, $805,706. The total resources of the schools amounted to about two and a half millions; and about three-fourths of this by the voluntary action of the several districts.

"Our school fund now amounts to $2,150,237, most of which pays seven per cent. It will ultimately reach nearly four millions. The University fund is $769,978, and draws seven per cent. The Normal School fund is $66,697, and draws six per cent. All parties have at all times sacredly regarded our educational fund."

The bound volumes of the new edition of the School Laws have appeared, and are rapidly being distributed through the County and Town Clerks.

The fall term of the University began under favorable auspices, Prof. FRIEZE acting as President. Dr. B. F. COCKER, recently appointed to the pastorate of the Central Methodist Church, in Detroit, has been elected Professor of Mental and Moral Philosophy; Dr. A. B. CROSBY, of Dartmouth College, to the chair of Surgery; and Principal A. C. PATTENGILL, late of the Ann Arbor Union School, Assistant Professor of Greek and French. President JAMES B. ANGELL, of the University of Vermont, has been elected President, and visited the Uni

versity a few weeks since, but has not yet signified his acceptance of the appointment. He is about forty years of age, a graduate of Brown University, and reputed to be a scholar of rare attainments and eminent executive abilities. The general library of the University, numbering about 16,000 volumes, is being thoroughly re-catalogu d. Four of the buildings on the Campus are to be heated by steam. It is reported that a well-prepared young lady has made application for admission to the classical department, but was rejected, on the ground that the Regents had made no provision for such cases.

The academic year of the Normal School opened on the 28th ult., with an unusually large attendance.

ALLEGAN COUNTY.—The Allegan *Journal* argues in favor of making the education of children compulsory upon parents and guardians, for the protection of society against ignorance and crime.

BAY COUNTY.—The Bay City Public Schools re-opened on the 6th ult., with a force of twenty-six teachers, drawing an aggregate salary of $15,400, the Superintendent being paid $2,500. There are 2,003 children of school age in the city, for whom 1,528 sittings are provided. Six Ward school houses have been erected, and another is called for. The improvements in buildings and grounds during the last two and a-half years have cost $75,434.69, of which $51,945.90 was for the High School building.

BARRY COUNTY.—Hastings schools opened on the 6th ult.. W. J. STUART, Principal; Grammar School—Miss ELVIRA BREWER, late of Detroit; Intermediate—Miss STELLA E. TYLER; Primaries—Miss LUCY A. BIGELOW, of Medina. and Miss ANNIE M. FERREE. It is proposed to build one or more additional school houses in the village.

BERRIEN COUNTY.—At the annual meeting of the County Bible Society, held in Niles recently, a donation was made of a bible to each school-room in the county, unsupplied with one.

Niles Schools opened on the 6th ult. New teachers—Principal, GEORGE F. EDWARDS; Miss ELIZA STINES, Second Intermediate; Miss FANNY H. DOUGLASS, Second Primary; Miss S. A. SHOPE, First Primary; Miss HUGGINS, Colored School.

St. Joseph Schools opened same date. Principal, GILES E. STILLWELL, A. B.; Miss ELLA BARNUM, of Indiana, Preceptress; Intermediate—Mrs. E. C. ALPHONSE, Miss JOSIE WILLIAMS; Primary Schools—Miss FRANK REEDY, Miss HATTIE STILLWELL, Miss SARAH DONALDSON.

ALBERT F. HILL, late Principal of the Homer Union School, takes charge of the schools at Three Oaks. He is assisted by Miss DELL FRANKLIN, and Miss E. K. CROSBY.

Graded school districts have been recently organized at Three Oaks, New Buffalo, Millburg, and Benton Harbor. Mr. A. J. WOOD has been chosen Principal of the school at the latter place. The school house at New Buffalo is being moved and thoroughly repaired.

The semi-annual meeting of the County Teachers' Association took place at Berrien Springs on the 15th and 16th inst., with an excellent programme and good attendance. Sup't FORD addressed the Association on

"The Teacher's Relation to Educational Reform," and Principal THOMAS, of Battle Creek, spoke on Friday evening, on "Ways and Means."

BRANCH COUNTY.—Mr. C. A. COOK, of Tecumseh, has been engaged as Principal of the Quincy Union School, which goes into a handsome new building.

CALHOUN COUNTY.—Sup't FANCHER is making his fall round of examinations. In addition to the usual common school branches, he gives "credit, with the percentage, of any other study, as of Latin, Greek, or French, etc., in certificates of any grade." Each examination is followed by an evening lecture on "The Mutual Responsibilities of Parents and Teachers." An additional allowance of twenty-five days per year was made the County Superintendent at the late meeting of the Board of Supervisors.

CASS COUNTY.—The County Institute was held as per appointment, during the first week of September, in charge of Sup't CLENDENEN, assisted by Prof. BELLOWS and Miss RICE, of the Normal School. It was obliged to remove from Cassapolis to Dowagiac, in consequence of general sickness at the former place. At Dowagiac "persistent discouragement on the part of a local teacher" is charged by Prof. BELLOWS, in a published card, and very weakly defended by the accused.

Salaries to the amount of $4,053 were paid to the Dowagiac teachers during the last year.

CLINTON COUNTY.—The fall term of the Maple Rapids Schools opened under favorable circumstances, save the insufficiency of the house. Principal J. MCINTYRE is in charge, assisted by an able corps of subordinates. Twice as many children are reported as can be accommodated, and an additional building is projected.

Sup't MUDGE is editing an educational column weekly in the *Clinton Republican.*

EATON COUNTY.—Olivet College re-opened with a very full attendance, some of the classes being fuller than ever before. Miss DENNIS, of the College, lately lectured at Charlotte on "Social Reform," in answer, it is said, to Miss ANNA DICKINSON.

GENESEE COUNTY.—Flint has 1,512 children of school age.

HILLSDALE COUNTY.—Jonesville schools began on the last Monday in August in the new building, which seats 628 pupils. T. B. CLELLAN reengaged as Principal.

INGHAM COUNTY.—The report of Sup't GASS, of the Lansing schools, shows that but sixty-four per cent. o the children of that city can be seated in the public school buildings. He urgently recommends more and better rooms, but *no more small buildings*, and thinks provision should be made for systematic instruction in music and drawing, and for the formation of a normal class. The sum of $14,500 has been voted for the city schools; $11,850 for teachers' wages.

IONIA COUNTY.—Teachers in Portland Union schools: Principal, J. W. CARNS; Grammar—Miss BELLE SCRIBNER; Intermediate—Miss ESTELLE

MOREHOUSE, late of St. Joseph schools; Primaries—Miss SOPHIA PERRIGO, Miss SARAH J MILLER. The teachers were subjected to a very rigid examination by the School Board, prior to their examination by the County Superintendent.

JACKSON COUNTY.—The first County Institute held by Sup't BENNETT, met in Jackson the last week in August. It was largely attended, and is reported as highly successful. Principal lecturers: Profs. LAWTON, LANE and WHITE, of the city schools, Prof. THORPE, of Parma, and Prof. AMES, late of Maryland. Rev. H. F. SPENCER gave an eloquent and practical closing address.

The former Principals of the Jackson schools are retained. Sup't LAWTON'S salary has been increased to $1,800. Miss AMANDA HALL, a graduate of the Normal, has taken the West Side Grammar School at $500 a year, and her place in the High School is filled by Miss HANNAH TUPPER, also a Normal graduate.

Pro. C. J. THORPE remains at Parma. His school, and nearly all the Union schools of the county, are reported by Sup't BENNETT as in a more prosperous condition than ever before.

KALAMAZOO COUNTY.—$12,000 has been voted to build a new school house north of the M. C. R. R. track in Kalamazoo village, and $16,000 for contingencies. The district reports 2,800 school children.

A teachers' training-class for the county has been organized at Kalamazoo College.

LAPEER COUNTY.—Sup't VINCENT writes of the "rich treat" experienced at the State Institute held at Lapeer in August. Profs. ESTABROOK, TRUESDELL and MCLOUTH, were present.

During the past two years fifteen to twenty new school houses have been erected in the county, and five are in progress. There is much interest in educational affairs, and many have expressed themselves in favor of compulsory education.

LENAWEE COUNTY.—Adrian schools opened September 6th, under the supervision of Principal W. H. PAYNE, "with great success," the reporter says. The names of 2,871 children are on the school census-roll, an increase of 271 over that of last year. $30,000 was voted at the annual meeting for school purposes. A vigorous effort was made to exclude the study of Greek and Latin from the High School.

LIVINGSTON COUNTY.—Ill health has nearly compelled the resignation of Sup't SPROUT, but he hopes to remain in the work.

There was a stormy annual school meeting at Pinckney, the exciting question being the re-engagement of the former Principal. It was decided in his favor.

Principal E. G. REYNOLDS reports the Hudson schools in a prosperous condition. S. A. REED is Associate Principal, with three subordinates. Mr. REYNOLDS has six assistants, viz., Misses NELLY E. KENT, of Adrian, MARY E. CASE, MARIAN E. SPAULDING, RACHEL E. DUNHAM, and EMMA LONG, of Hudson, and Miss MELISSA STEVENS, of Rome. He has examined the classes in all the different departments this term, and more thoroughly than heretofore.

MANISTEE COUNTY.—The fall session of the Manistee schools commenced the second week in September, in charge of PHILIP L. GREEN, late of Owosso, assisted by six teachers. $10,000 has been voted for school purposes.

MONROE COUNTY.—The school census of Monroe city exhibits a total of 1,710 children. A local paper speaks of the school as "flourishing and well managed; but it can not accommodate all who would like to send."

Sup't WILLARD is regularly editing an educational column in the Monroe *Monitor*.

MUSKEGON COUNTY.—Sup't LOOMIS writes that only forty-four of the sixty districts in his county have had schools during the last summer. Fifteen to twenty log school-houses still remain, but several of them are being displaced by frame buildings, which will be ready for winter terms. Since May 5th, he has granted three first, five second, and twenty-six third-grade certificates, and has visited forty-nine schools. He thinks the teachers have done a good work, under all the circumstances. There are many indications of increasing interest among the people.

The graded school at Whitehall has a new building, to replace the one destroyed by fire. The former efficient principal, Mr. A. C. ELLSWORTH, remains in charge, assisted by Mrs. ELLSWORTH and Miss JENNIE YERKS. Sup't LOOMIS speaks in warm praise of the success of the Muskegon schools, under the supervision of our colleague, Principal C. J. WHITNEY, assisted by Miss MARGARET MCINTYRE, Preceptress, and Misses ADA MARSH, HELEN M. PECK, ROSA SNOW, NETTIE PIPER, CARRIE GUSTIN, ROSA BLOOD, LENORE INGHAM, FANNY M. WARNER, FANNIE LANGLEY, MILLIE M. PECK, CYNTHIA M. WILCOX, and Mrs. KATE CORLISS. The annual meeting was unusually numerous and harmonious.

ONTONAGON COUNTY.—Rockland schools opened on the 6th ult., with the following corps of teachers: Principal, E. A. WHITWAM; Grammar—Miss AUGUSTA A. HOYT; Intermediate—Miss SARAH A. PECK; Primaries—Miss BARBARA ALAN, Miss EMILY ROBERTS. An attendance of 280 pupils is reported, and a total of 350 is expected. A room was added to the school-houses during the vacation.

SAGINAW COUNTY.—Saginaw city has 2,154 school children, and East Saginaw 2,621.

A new Union school house is in course of erection at Chesaning, at a cost of $10,000.

ST. CLAIR COUNTY.—Port Huron schools opened this fall with a force of nineteen teachers, headed by Principal C. E. FRASER. A new and elegant brick school-house on Lapeer avenue has been completed. Plans for another, to be erected on the north side of Black river, and to cost $25,000, have been accepted by the School Board, and it is to be built within a year.

ST. JOSEPH COUNTY.—A new Union school house has been completed at Constantine, costing $60,000. It is eighty feet square, has a basement and three stories, including ten school-rooms, a public hall, recitation rooms, closets, etc, and is heated by furnaces throughout.

VAN BUREN COUNTY.—Prof. H. D. HARROWER is Principal, and Miss NELLIE F. THOMPSON Assistant, in the Paw Paw Union School, this year.

WASHTENAW COUNTY.—City Sup't JONES makes an interesting report of the Ann Arbor schools. He speaks with just feelings of the persecutions and prosecutions to which teachers are subjected for their occasional practice of corporal punishment; calls attention to the "efficiency of the writing department;" states that two new courses—a Latin and an Elective Course—for the High School, have been adopted; and commends his teachers for faithful labor during the past year.

Principal A. C. PATTINGILL, who has been transferred to the University Faculty, was presented with a Webster's Unabridged and a neat writing-case, by his late pupils.

About $20,000 was voted for the schools of Ann Arbor at the annual meeting, and the Board was directed to select a site for a new school building in the Sixth Ward.

Prof. CONVERSE, of New Hampshire, succeeds Prof. PAYNE as Principal of the Ypsilanti Union Seminary, at a salary of $2,000, and Miss TREADWELL succeeds Miss POST as Preceptress.

Much excitement was created at the annual school meeting in Ypsilanti, by an unsuccessful attempt of the Roman Catholics to secure $1,000 for their own school, or, failing in that, to defeat the regular appropriations.

The director of the Dexter schools prepared blanks and took a complete census of the town, while taking the school census. A good plan for general imitation.

WAYNE COUNTY.—A County Teachers' Association was formed at Wayne, August 30th, and remained in session three days. Sup't BROWN is President, and writes that they "had a good time." We regret to learn that he is losing money in the publication of his excellent paper, *The Common School Assistant*, and talks of discontinuing it.

Mr. G. W. CHROUCH, of Dexter, has received the degree of A. M. from Middlebury (Vt.) College.

Mr. J. C. MATTISON, recently of Stanton, has removed to Muir, to take charge of the Union school.

Mr. S. W. BAKER, a graduate of Ypsilanti Seminary, is Principal of the High School at Corunna.

Prof. CONVERSE, recently of Cleveland, and for several years Principal of the Toledo High School, is Principal of the Ypsilanti Seminary at a salary of $2,000.

Miss TENIE G. GLOVER, for several years teacher of the Grammar School at Ypsilanti, is Preceptress of the Holly Union School.

Battle Creek has voted $75,000 for a new central school building.

A committee of the Board, with the Superintendent, recently visited the new house at Adrian, and expressed themselves highly pleased with it

MATTERS ABROAD.

AMERICAN.

The August meetings of the National Associations at Trenton are mentioned as the most important educational councils ever held in this country. Twenty-eight States were represented, and nearly all the distinguished educators in the Union were present, numbering about 1,500, including the lesser lights. Many valuable papers were read, but little opportunity was given for discussion. One of the readers, who opened the subject of "woman's rights" in a manner obnoxious to a portion of the National Teachers' Association, was very ungenerously and disgracefully suppressed, and was obliged to leave the stage. We have not room for even a sketch of the elaborate proceedings of these Associations.

The Northwestern College Association, composed principally of the faculties of colleges, met at Evanston, near Chicago, a few weeks since. The session was interesting and profitable. Dr. E. O. HAVEN, late of the State University, was elected Vice-President for the current year, and Prof. M. L. D'OOGE, of the same, Secretary. The name was changed to "Central College Association," in view of the recent location of "the West" on the Pacific coast. The next session will be held in Ann Arbor, in August of next year.

The first number of a neat monthly, in quarto form, entitled *The College Review*, has appeared. It is occupied chiefly with matters pertaining to the higher education.

CALIFORNIA.—The new University of the Pacific, at Oakland, near San Francisco, opened its first term on the 22d ult., with thirty-six students.

A correspondent of *The National Normal*, writing from the Golden State, says that teachers' wages are about seventy dollars a month in gold, and that ladies generally receive *the same wages as gentlemen* for teaching the same grade. The requirements for successful examination are fearfully high, however. The candidate for a first grade certificate is examined in fifteen branches; for second grade, thirteen. No third grades are granted to gentlemen.

The following euphonious or suggestive titles appear in the list of districts entitled to public money, published in the *California Teacher* for September: Fiddletown, Muletown, Mosquito Gulch, Grindstone, Mount Diablo, Eden Plain, Eden Vale, Happy Camp, Rowdy Creek, Jay Hawk, Wild Goose, Grizzly Bluff, Soldier Ridge, Bog Dale, Dixie, Cuffee's Cove, Wooden Valley, Blue Tent, Rough and Ready, Deadwood, Rattlesnake, Yankee Jim's, Zinc Hose, Roaring River, Whiskytown, Piety Hill, Elbow, Timbuctoo, and many other such.

ILLINOIS.—The Commissioners of the Southern Normal University have fixed its location at Carbondale. Tamaroa was the only prominent competitor.

MAINE.—A young lady has been admitted to the Freshman class in Bates College. Her preparation, especially in the classics, is said to be remarkably good.

The State Superintendent has appointed thirty-two Teachers' Institutes in the State, to take place between the first of September and the last of December. Each is to hold two sessions of five days. This is well called "a vigorous educational campaign."

MASSACHUSETTS.—The head master of the English High School in Boston receives a salary of $3,500 the first year, and $4,000 per year thereafter.

MINNESOTA.—The Regents of the University have succeeded in electing a Faculty, as follows: Col. W. W. FOLWELL, of Kenyon College, Ohio, President and Professor of Mathematics; Dr. JABEZ BROOKS, of Red Wing, Professor of Greek; Gen. R. W. JOHNSON, Professor of Military Science; Mr. A. B. DONALDSON, of Farmington, Professor of Rhetoric, History, and English Literature.

NEBRASKA.—The Nebraska State Teachers' Association held its third annual session at Omaha, August 25th, 26th and 27th. Addresses were delivered by Prof. J. M. MCKENZIE, Principal of the State Normal School; Prof. O. B. SEAGRAVE, of Omaha; Rev. R. FOSTER, and Prof. W. H. FRENCH, Principal of the Nebraska Institute for the Deaf and Dumb.

The officers elect for the coming year are Prof. O. B. SEAGRAVE, President; P. M. MARTIN, Secretary.

The State Normal School has been fully established. J. M. MCKENZIE, A. M., is Principal; Prof. P. M. MARTIN, Associate; Miss ANNA OLCOTT, a graduate of the Michigan Normal School, in the class of 1867, Preceptress.

OHIO.—A vigorous effort, under the leadership of Archbishop PURCELL, has been made by the Catholics for the exclusion of the bible from the public schools of Cincinnati. It had not succeeded at last accounts, but the result was still in much doubt.

PENNSYLVANIA.—The State Teachers' Association was held this year in Greensburg, and was a numerous and enthusiastic gathering. The September number of the *Pennsylvania School Journal* contains a full report of the proceedings, including a number of the important papers read.

NEW YORK.—After much discussion, and a pertinacious opposition, the Board of Education has resolved that the Latin and Greek languages shall still be taught in the college of the city of New York. It is stated that the accommodations of the school buildings in that city are quite insufficient, and that thousands of children are excluded from the schools in consequence.

TENNESSEE.—A circular from the State Superintendent gives a report of "facts, figures, and results," relating to the workings of the Free School system in that State, from October, 1867, to July last. He thinks that "both friends and foes of free schools will be surprised at the magnitude and the value of the results of the system so early in its existence." Some of the statistics are truly surprising, as those indicating the burning, or destruction otherwise, of *thirty-seven* school-houses during the short period referred to. We presume these to have been occupied by freedmen's schools. Number of schools, 2,431—302 for black. Number of teachers, 2,412—195 colored. Number of pupils, 135,732; colored, 18,808.

The Michigan Teacher.

Vol. IV.—ADRIAN, NOVEMBER, 1869.—No. 9.

Letters to a Young Teacher.

III.

MY DEAR SIR: A writer in the *Nation* recently remarked, that the only principle in education which could be considered as well settled, is that *there ought to be schools!* This statement is much nearer the truth than we may be willing to admit. How many well recognized principles can you mention? The truth is, that to this day there is scarcely a suspicion that a *rational method* in teaching is possible. Thought, if there be any on this subject, is yet in the first of the three phases of its progress—"the unanimity of the ignorant." There is yet to be "the dissension of the inquiring," and "the unanimity of the wise." Progress is not likely to be rapid when there is not enough mental activity to excite discussion. Should you visit a farmer's club, or a medical convention, you would hear warm discussions on method and first principles. In teachers' conventions we are sagely considering whether woman should be educated! I am now speaking of the general aspect of the situation. Of course there is some discussion—some inquiry for light; but how contradictory are the results! Some teachers begin their instruction with *letters*, or even *sounds*, while others begin with the *word*, or even with the *sentence*. One Professor in the Normal School would begin his instruction in arithmetic with *principles*, while another would begin with *applications;* one would ask the child first to observe the fact

Entered according to Act of Congress in the year 1869, by PAYNE, WHITNEY & Co., in the Clerk's Office of the District Court of the United States, for the Eastern District of Michigan.

that an unsupported body will fall to the ground, and the other would first tell the child why it falls, and then permit him to observe the fact! One of the most studied attempts to teach methods founded upon principles is made at the Oswego Training School. The principal of this school has embodied, in two volumes, all that is peculiar in the English training schools, conducted on the Pestalozzian plan.

On page 15 of the "Elementary Instruction" I find the following *principle* laid down:

"Proceed from the known to the unknown—from the particular to the general—*from the concrete to the abstract*—from the simple to the more difficult."

The italics are mine. Let us apply this principle to reading. Observe, with some care, these three things—a word, a letter, an elementary sound. A word may be regarded as *a sign employed to recall a conception;* and so intimately are they connected that the first instantly suggests the second. When language is employed to any purpose, so perfect, so intimate is this association, that the mind often makes no discrimination between the word and the conception. LEIBNITZ has shown that words are often more than mere signs of thought—*that they may become thoughts.*

A letter is the sign of a sound; and a sound is a fraction of a spoken word. Does either a letter or an elementary sound suggest an idea or a thought? Is B the symbol of anything which the mind can cognize through either of the senses? Contrast the *letter* C, or the sound it represents, with the word *cat.* Which is *concrete, i. e.*, which is associated instantly and fully with a conception which the mind can employ in thinking? Does E or F symbolize anything to the mind what it can appropriate and use? The principle just quoted directs us to proceed from the *concrete* to the *abstract.* Is there anything in language more concrete than a *word*, or more *abstract* than a letter or an elementary sound? In virtue of this principle, where would you expect Mr. SHELDON to begin his instruction in reading? With the word, of course. But not he. The child's first reading lesson is a repetition of *elementary sounds*, and by slow degrees he proceeds to words. This is proceeding from the *concrete* to the

abstract—"from the *known* to the *unknown!*" The child already knows the things denoted by A and R and X, and proceeds, in due time, to such unknown things as *cat*, *boy* and *horse!* Though much tempted, I would not do so improper a thing as to say what I really think, and call such a process stupid, nor stop to wonder how a man, whose theory is so true, adopts a practice so absurd.

On the same page I find this principle: "First synthesis, then analysis—not the order of the subject, but the order of nature."

The phrase, "the order of nature," may be construed in two ways. It may mean the order in which men naturally gain their knowledge—the order in which the sciences have been gradually built up; or it may mean the order in which creative power has been exercised in executing the work of the universe. The first is no doubt the author's meaning, for surely he would not teach that man, in the genesis of his knowledge, is to begin with final causes, and advance *outward* to ultimate facts.

It does not suit my purpose now to inquire minutely into this matter; but I will say that this principle (?), tried by "the order of nature," is wholly false. The universal mode is, first analysis, then synthesis. For proof I would refer to your own common sense, to WHATELEY's Logic, pp. 23–58, and to HAMILTON's Metaphysics, Lecture VI.

I have ventured this criticism to show you that even among those who profess to teach systematically there is much that is false, and more that is contradictory, in their assumed principles. The truth seems to be, that our whole educational philosophy, the little there is of it, needs recasting from the very foundation. In what follows I hope to interest you in searching after those truths which may guide, with a steady light, you and me, in doing, in a rational manner, our alloted work.

W. H. P.

THE CLASSICS IN OUR HIGH SCHOOLS.

From a Letter Addressed to the Editors of the Adrian Times and Expositor.

BY MRS. N. GEDDES.

WE will look at some of the points in just one of your articles, and see how you talk to intelligent men and women. In your issue of August 12th, you write under the head "Shake off the Dead." The first paragraph reads thus: "The tenacity with which we Americans cling to old methods and studies in teaching our children, is positively ludicrous." Perhaps this wise and very positive assertion is true; but we ask, "What nation has a public school system in advance of that in the Northern States of our Republic? What methods are used and what studies are pursued in schools superior to these? We can see nothing *ludicrous* but such an assertion made to intelligent persons.

The second paragraph reads thus: "We do not intend to condemn anything of good embraced in our system of teaching, but simply aim at the evil, and earnestly desire, so far as our influence goes, to secure to our children a more thorough training in those branches of study that more directly bear upon the after life." What is your system of teaching? You have shown none, either in previous or subsequent articles. You peremptorily demand that the classics be thrown out, but substitute nothing in their stead. Before you take from us what we have, give us an equivalent in something else. Show us the better way that you would have us pursue. We earnestly second your desire to secure to *your* children just such an education as you deem desirable, and hope that your influence over them will be sufficient to secure the coveted goal; but we were not aware that there was anything in our school system, as it is, to hinder this being done. And further, we would like to know what those branches of study that more directly bear upon the after life are. We ask for information.

In your next paragraph you assert that the greatest reason for studying Latin and Greek that we can give, is that our fathers studied them, and deemed them essential to a good edu-

cation. This may be honest truth with you, but we have a better opinion of the practical sense and intelligence of this and other communities than to think other than that the number who cannot give a better reason for what they have studied, is confined to your acquaintance. We know of none.

In the same paragraph you assert that more than half of the time in the High School is devoted to the study of languages not spoken by any nation upon the face of the earth. This is not true. Now look at the fallacy here covered. Latin and Greek are not studied to be spoken. They are studied because they are the *basis* of our own and other spoken languages.

Your next paragraph open's thus: "There cannot be so much objection to the study of languages by those possessing wealth and leisure. It is well, perhaps, that these should do so, as it will keep them out of *mischief*," &c. And further on, in the same article, you reiterate the same thought in this wise: "But while there is some show of excuse for Latin and Greek in the College courses (mark the reason!) that the time of the wealthy may be employed in doing something that is not injurious to society, and to themselves, particularly," &c.

Well, here is a *dangerous* class of society, that we have not been in the habit of regarding as such—the wealthy. But the law terms persons dangerous to society, or to themselves, as criminals, and protects itself by restraining their liberty in jails or prisons, or reformatory institutions. We had never regarded Colleges as belonging to the latter class of institutions, or Latin and Greek as *disciplinary* in this sense; but we credit you with great tolerance and magnanimity in admitting that they are useful anywhere.

But, we soberly ask, if only the *wealthy* people our Colleges, if a majority of College students belong to that class, if more than a small per centage of them do? Are they not rather mainly composed of young men from either the middle or toiling classes—young men who must make their own way in the world—make their own mark if they can, but of necessity *earn* their own bread and butter? Take our distinguished men, those who have made themselves eminent in pulpit, or famous in civil or military relations, in letters, in legislative halls, or in any

other positions of trust, and you may count upon your fingers every one of those that came from wealthy parentage.

In your next paragraph you make the point that a very large per cent. of all classical graduates, in ten years from graduating, cannot read the first three books of Virgil without the aid of lexicon and grammar. Even if this be true, it proves nothing. You might as well argue against a man's eating, because his stomach contains nothing to-day that he ate ten years ago. Eating bears the same relation to the body that study does to the mind—it nourishes and develops it. If we are to learn only what we retain accurately in memory an indefinite length of time, then our studies will be reduced to a few elemental branches. Apply this test to mathematics. If our learned Editor were to-day asked to demonstrate in conic sections, how creditably would he get through the performance without reference to his text-book? How much of trigonometry, or any of the other higher mathematics, can he demonstrate to-day? How much, even, of algebra has he used in practical life? How much, even, of arithmetic, aside from the simple rules and interest? Is the time *wasted* that is spent on mathematics because we do not remember or use all that we learn? Apply this test to every study in our High School, and the same result is reached. Is study designed only for a discipline to the memory? That is its lowest use.

Your next assault upon the classics is an appeal to the *cupidity* of those who sustain our schools. You assert that it is no excuse for retaining Latin and Greek that a part of the scholars wish to study them; that those who sustain the schools are as competent to decide what ought to be studied, as are those who wish to study these branches. Tax payers support our schools. How many of these feel competent to decide intelligently upon the text-books used in our High Schools. Only professional educators, or those who have given a great amount of time to this subject, ought to decide such important questions.

The last in this chapter of fallacies is the grave announcement that our own language ought to be better studied, and the inference is drawn that if it was, our scholars would be better

educated, because their education would be more practical. Is this a logical deduction from the premises?

We have only partially reviewed *one* of your articles upon the classics, but each and all of the others can be shown to be equally illogical in reasoning, and faulty in fact.

You have utterly misconceived, or willfully misconstrued, the idea of what education is, or what it ought to accomplish.

New Practice in Repetends.

THE expression for the normal method of forming repetends may be considered as $\frac{1}{d}$, and the expression for the method of forming them backwards, as qs. Judge Josiah Scott, of Bucyrus, Ohio, suggests another method, whose expression would be $\frac{q}{s}$.

Thus, $\frac{1}{7}=\frac{7}{49}=\frac{7}{50-1}=\frac{.7}{5-.1}$. Let us perform this division, as shown in the left margin. In subtracting, the negative sign of the decimal part becomes positive, and it sustains such a decimal relation to the digits preceding it, that the decimal point may be dropped in writing the remainders. This is, in short, a mere reversal of the *column*, as shown in the margin at the right. Thus: placing 7 at the top, we divide by 5, placing the quotient under the 7, and the remainder in the tens' place, forming a new dividend, and so proceed, thus forming the *column* backwards, and the repetend in natural order.

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                 ∽ ∽ ∽ ∽ ∽ ∽
5—.1) .7 ( . 1 4 2 8 5 7
      .5—.1
      ------
       .21 . . . . . . . . . a
       .20—.4
       ------
        14 . . . . . . . . . b
        10—.2
        -----
        42 . . . . . . . . . c
        40—.8
        -----
        28 . . . . . . . . . d
        25—.5
        -----
        35 . . . . . . . . . e
        35—.7
        -----
         7 . . . . . . . . . f
```

```
5 ) 7
    21..a
    14..b
    42..c
    28..d
    35..e
     7..f
Column reversed
```

If d is a composite number, the number of digits in R is always less than d—1. For if $cf=d$, the number of digits in R cannot be greater than $(c-1)\ (f-1)=d-f-c+1$. Thus

$\frac{1}{119}=\frac{1}{17}\times\frac{1}{7}$, both of which fractions form perfect *R's*, $\frac{1}{17}$ having 16, and $\frac{1}{7}$ having 6 places. If we divide *R* of $\frac{1}{17}$ by 7, it is evident we shall produce R of $\frac{1}{119}$, and the number of digits is evidently a multiple of 16; or, dividing *R* of $\frac{1}{7}$ by 17, the number of digits in *R* of $\frac{1}{119}$ is some multiple of 6. Therefore the number of digits in *R* of $\frac{1}{119}$ is a common multiple of 16 and 6; generally, in such cases, it is the least common multiple. Thus, *R* of $\frac{1}{119}$ has only 48 places.

In some repetends the number of digits is vastly less than $d-1$.

Thus: with $\frac{1}{27,027,027,027,027,027,}$ *R* has only 21 places, viz. .000,000,000,000,000,000,037, while the value of *d* is more than 27 quintillions (French notation). The reason is that $27\times37=999$, and therefore we may repeatedly affix 027 to *d*, thereby increasing the value of *d* more than a thousand fold; but we add only 3 to the number of digits in *R*, and the two digits 37 are the only significant ones.

R of $\frac{1}{49}=\frac{1}{7}\times\frac{1}{7}$ has only 48 digits, and the missing *R's* are the first 6 multiples of 7. The *column* shows the rationale. For the multiplier in the *columns* of $\frac{1}{49}$ and of $\frac{1}{7}$ is the same, viz: 5. Now, in *R* of $\frac{1}{49}$, since *q* is 1, the terms of the *column* are the *r's*, and if any multiple of 7 should appear, it would be one of the terms of the *column* of $\frac{1}{7}$, and it would be followed by another multiple of 7, thus running into *R* of $\frac{1}{7}$, which is impossible.

Referring again to the *column* of $\frac{1}{7}$, each term may be considered as $10x+y$. Now if $\frac{10x+y}{7}$ is an integer, then 5 times the same is an integer, viz: $\frac{50x+5y}{7}$; from which if we deduct the integer $7x=\frac{49x}{7}$, the remainder is an integer, viz: $\frac{x+5y}{7}$. But if any term is $10x+y$, the method of forming the *column* produces for the next term, $x+5y$. Therefore the terms of the *column* of $\frac{1}{7}$ are $7\,m_1\ldots 7\,m_2\ldots 7\,m_3\ldots$ etc. But it requires the demonstrations already given, to show that each term of *m* is equal to a corresponding term of *r*. See pages 108 and 111.

WM. WILEY.

DETROIT, October 1869.

The Public School System of California.

THE Golden State has been remarkably fortunate in its educational history. There were many superior men among the "Forty-Niners"; and when order was evolved out of chaos, and the institutions of civilization succeeded the reign of the vigilance committees and miners' law, the foundations of a splendid school system were laid. The best and greatest progress, however, dates from 1863. The work of construction has been, to some extent, a divided labor; but to one man, more than to any other, is due the present perfection of the edifice—to the "HORACE MANN of the great Pacific State," JOHN SWETT, for five years State Superintendent of Public Instruction, now, "with an almost unparalleled devotion to his profession," as another has justly remarked, occupying the modest position of Principal of the Denman Grammar School, the pride of the city of San Francisco.

Our limits would not permit us, if we had the materials at hand, to trace the history of popular education in California. Mr. SWETT had the high satisfaction, shortly before leaving office, of witnessing the transition-period in that State, through which we are now passing—from rate-bill common schools to a truly American free school system. This was secured by the passage of the Revised School Law, approved March 24th, 1866. By this the State school tax was raised to eight cents on the hundred dollars, and the minimum county tax was increased to an amount equal to three dollars per child of school age, the maximum to be not more than thirty-five cents on the hundred dollars. Taxes to the latter amount may be levied by any district for building purposes, or to the amount of fifteen cents per hundred dollars for school purposes. The securities belonging to the common school fund consist of bonds of the State, to the amount of $887,000, bearing seven per cent. interest, and held in trust by the State Treasurer. From this interest, half the amount received for poll taxes during the preceding six months, the State property tax before referred to, and the interest on the State school lands, the semi-annual apportionment of

money for educational purposes, made by the State Superintendent in August last, amounted to $121,827.08. These are the pecuniary foundations of the California public schools.

The State Board of Education consists of the Governor, the Superintendent of Public Instruction, the Principal of the State Normal School, the Superintendent of the San Francisco schools, three County Superintendents, and two teachers, holding office for the term of four years. It holds two meetings per year, and the members receive no compensation. It has power to adopt a course of study, and prescribe regulations for all the public schools of the State, and regulations and books for libraries; to adopt a uniform series of text-books; to grant teachers' life-diplomas, and to ordain rules for the examination of teachers by the subordinate Boards. It is a thoroughly efficient and fearless body. The State series of text-books prescribed, though somewhat long and miscellaneous, includes many of the latest and best books before the public. The detailed course of study laid down, and required to be enforced by County Superintendents, Trustees, and Teachers, is based upon a true philosophy, and includes the methods of object-lessons, lessons in morals and manners, etc., known to the best schools of the East. Witness also the following, passed at the session of the Board in May last:

Resolved, That it is the sense of the State Board of Education that the willful neglect on the part of a teacher to attend a County Institute, duly called by authority of the County Superintendent, is a sufficient cause *for the revocation of a certificate* of the teacher guilty of such neglect.

The State Superintendent of Public Instruction also holds his office for four years, and is paid a salary of $3,000 (gold) per annum, with power to appoint a clerk at $1,800 a year. His duties, in general, resemble those imposed upon our State Superintendent. He is, however, obliged to travel through the different counties of the State, during at least four months in each year, to visit schools, consult with County Superintendents, lecture before County Institutes, and address public assemblies on subjects pertaining to the schools. His traveling expenses, to the amount of $1,000 per annum, are paid by the State. The official blanks issued by him are models of their kind. To him

each teacher in the public schools is obliged to report once a year, giving an abstract of monthly summaries taken from the State School Register, which every teacher must properly and fully keep, under penalty of forfeiture of the last month's salary. Among the questions he prescribes for answer in this report are these: What journals of education have you taken? What State or County Institute attended? Have you kept the State School Register as prescribed by law? Have you used in school the State series of text-books? Have you followed the course of study prescribed? Similarly full and minute forms are prepared for the reports of the school census marshals and school trustees.

The County Superintendents are elected biennially, and each receives a compensation of not less than twenty dollars for every school-district in his county, and is allowed, in addition, "for postage and expressage," a sum equal to one dollar per district. He is entrusted with the apportionment of all school moneys to the districts, and the drawing of warrants on the County Treasurer for the same; and must give an official bond to the county. Together with the ordinary duties of school superintendents, he must enforce the prescribed course of study and use of the authorized text-books, and must keep a file of the State educational journal. If he fails to make a full and correct annual report to the State Superintendent, he forfeits $100 of his salary. He may appoint trustees to fill vacancies, or for a new district, or when a district has failed to elect; may require the trustees of any district to make repairs upon the school property, or abate any nuisance about it; shall "in all cases require the trustees *to provide such privies and out-houses as decency requires;*" and shall hold (in all counties having ten or more districts) at least one County Institute per year, of three to five days' duration, for instruction in the theory and practice of teaching, which every teacher employed in the public schools of the county is obliged to attend, "and participate in its proceedings." The pay of teachers cannot be diminished by reason of this attendance. A sum not exceeding $100 per year may be drawn from the county school fund, for Institute expenses. The Superintendents of two or more counties may unite and hold a joint Institute. A county having a regularly organized Teachers' Association or Institute,

meeting monthly, may be exempted from the operation of these provisions. The Institute work is a prominent feature of the State system, and is rightly held in high estimation. The notes of the State Superintendent's "official journeyings" among the County Institutes indicate that they are well conducted, the programmes judicious and varied, and the exercises interesting and profitable. At the annual State Teachers' Institute, convened by the State Superintendent, in pursuance of law (he receiving $500 for the expenses of each), and held in San Francisco last May, 387 members were enrolled, representing 25 of the 50 counties of the State—a remarkable fact, when the newness of the country (twelve of the counties having less than ten districts), and the limited facilities for traveling are considered. The papers and addresses presented were generally of a high order of merit, though we regret to see two-fifths of the report of proceedings occupied with a record of unprofitable debate on the vexed text-book question.

The County Superintendent is also empowered to appoint a teacher, and cause a school to be kept, in every district which has public money enough to keep a school open during five months, if the trustees neglect or refuse to open the school. He sees that the boundaries of districts are correctly defined upon the records, and may make changes in order to harmonize con flicting descriptions; for this labor receiving an allowance of $5 per day. The school census marshals and the trustees report to him, and he consolidates their reports for the use of the State Superintendent.

Other school officers have been already mentioned. The trustees, to the number of three, are chosen at the annual school meeting, held on the last Saturday in June. One goes out of office each year. One is elected by them "District Clerk," whose duties are similar, of course, to those of our directors. The eighteen heads, under which the official duties of trustees are classified, present nothing noticeable, save these: "It shall be their duty * * in cities and large towns, to exclude from school children under six years of age, when the interests of the school require such exclusion; * * to require all pupils to be furnished with suitable books, as a condition of membership in

the school; * * to exclude from school and from school libraries, all books, tracts, papers or catechisms of a sectarian character;" and to enforce the use of the text books, course of study, and rules and regulations prescribed by the State Board. They appoint the school census marshal, who takes, annually, in June, an exact census of all children under fifteen years of age, separately recording whites, negroes, and Indian children under guardianship of white persons, and "Mongolians."

Probably the feature of the system which has most contributed to give California, thus early, its educational pre-eminence, is the high standard for the examination of teachers. There are three examining Boards: First,—The State Board, consisting of the State Superintendent and four teachers by him appointed. It must meet at least semi-annually, and grants certificates for one (3d grade), two (2d grade), four (1st grade), and six years, the latter being called "Educational Diplomas." This board may also grant "Life Diplomas" to those who have, after receiving a State Diploma, taught, successfully, one year, or for the same time held the office of State, City or County Superintendent. Second,—The County Boards, each composed of the County Superintendent and not more than three teachers, whom he appoints. They meet at least quarterly, and during County Institutes. The State Superintendent may join the County Boards at any time. They grant three grades of certificates, for one, two and three years. Third,—Each city whose Board of Education is constituted by special laws, has a City Board, made up of the City Superintendent, the President of the Board of Education, the County Superintendent and three public school teachers of the city, who are elected by the Board of Education for a year. They grant certificates like those issued by the State Board, but valid only in their own city. Any city board may, however, recognize the certificates of any other city. Diplomas from any State Normal School, or life diplomas granted by any State Board, are recognized by the State Board of California "as *prima facie* evidence of fitness for the profession of teaching; and the said board shall, on application of the holders thereof, proceed to issue, without examination, State certificates, the grade to be fixed at the option of the

Board; *provided*, in all cases satisfactory evidence be given of good moral character and correct habits." A correspondent of *The National Normal*, writing from California last August, says that a perfect examination in the following branches secures the candidate a first-class certificate: Arithmetic, Grammar, Geography, History of the United States, Theory and Practice of Teaching, Algebra, Physiology, Natural Philosophy Penmanship, English Composition, Orthography, Defining, Reading and Elocution, Constitution of the United States, and School Laws of California. It is worthy of notice that the State Superintendent is required to furnish pamphlet copies of the School Laws, with forms, etc., to each *teacher*, as well as school officer. The propriety of the requirement last mentioned is obvious, and we hope it, with many other praiseworthy features in the California system, will in due time be introduced in this State. For a second grade, the examination is conducted in the same branches, except Algebra and Natural Philosophy. He adds: "They grant no third grade certificates to gentlemen." Another correspondent says: "The examination questions are furnished by the State Board, and new series are issued at every meeting of the Board for the purpose of certifying (*sic*) teachers. The State Superintendent informed me that many teachers of years' experience in the East, fail here in the first examination." Supt. J. D. PHILBRICK, in a recent article in *The Journal of Social Science*, has well summed up: "The effect of these admirable provisions has been to create among the teachers of California a stronger *esprit du corps*, a higher sense of the dignity and importance of their profession, and more enterprise in fitting themselves for their work, than we find among the teachers in any other State." It was a grand triumph for State Superintendent SWETT to be enabled to say, in his Biennial Report for 1866-7, "*one-third* of the teachers in the State hold State diplomas and certificates, and *one-twelfth* of the teachers are graduates of the California State Normal School." The results upon the present *status* of the schools, and the educational future of our new El Dorado, must be far-reaching and incalculable.

There are many other facts of novel interest and exemplary value, in the provisions for the conducting of the schools; the

payment, regulation and protection of teachers; the school district libraries; *The California Teacher* (circulating *twenty-seven hundred copies* in 1867); the State University, now fairly on its feet, after a waiting of nearly twenty years from the date of the State Constitution providing for it; the Normal School, with its corps of instructors and comprehensive course of study; the State Educational Society; the public schools and school-houses of San Francisco; and the remarkable school statistics of the State;—which may furnish material for another article.

H. A. F.

Professor J. A. Clark.

During the past summer, death removed from his field of toil one to whom the educational interests of Michigan must ever remain largely indebted, and to whom a brief tribute of remembrance is due in the pages of this journal.

James A. Clark was born in 1828, in Berkshire Co., Mass. As he approached manhood, he felt an increasing desire to gain an education, and to devote his life to the gospel ministry. After securing, by his own exertions, a preparatory education at the Shelburn Falls Academy, he entered Williams College in 1849. He was graduated from this institution in 1853. He was the second scholar in his class, and was by many regarded as justly entitled to the highest place. During his college course he was eminent not only for scholarship, but for profound religious feeling, and scrupulous obedience to all the dictates of duty. After teaching, for a year, the academy at which he had received his early training, he entered the Theological Seminary at Newton Centre, Mass., graduating in 1857. He was employed during his last year at the Institution as teacher of Hebrew.

Upon entering the ministry he was settled as Pastor of the Baptist Church at Adrian, Mich. In this important field he labored for several years. During all his ministerial life he took a strong interest in the promotion of collegiate and theological education in the Baptist denomination, and particularly in the two Institutions at Kalamazoo. In 1862, he became Professor of

Latin in Kalamazoo College, and retained this position (with an interval of a year or two spent in editorial labor) until his death. He devoted himself to the interests of the College with an earnestness that knew no limit. Amid all the dark and trying hours that at times almost discouraged the friends of the enterprize, he was unwavering, and ever saw in the future a career of prosperity and usefulness awaiting the Institution. In the work of removing the debt, in 1864, and again in the work of securing the $50,000 endowment in 1868, he underwent labors and privations that were probably beyond his power of bodily endurance. His health, however, seemed unimpaired, and every hope was entertained of a long life of happy labor.

Late in the spring of the present year he was attacked with measles, which finally terminated in rapid consumption. He died on the 19th day of August, in the forty-second year of his age.

Of his mental characteristics, clearness and accuracy were perhaps the most marked. Whatever he saw, he saw distinctly. Of what may be called his personal traits, nothing was more noticeable than a resolute adherence to a fixed purpose. In his moral and religious character, he was distinguished for fidelity to duty, unbending integrity, warm devotion, and elevated spirituality.

The Executive Committee of the College, the Faculty, and the Board of Trustees, as also the Baptist State Convention, of which he was a leading member, have all taken appropriate action in view of the decease of Prof. CLARK.

"He rests from his labors and his works do follow him."

H. L. W.

EDITOR'S DEPARTMENT.

WE shall feel obliged to our brethren of the press if they will be particular in sending exchanges to Adrian.

We are under obligations to many friends for subscriptions tothe *Teacher*, particularly to Prof. SCOVILLE, of Bay City, Supt. BROKAW, of Ionia, Supt. SPROUT, of Livingston, and Prof. HERRING, of Mt. Clemens.

The time for the annual educational meetings is at hand, and it is very desirable that all who are able should attend. The teachers of Michigan do not turn out in full force on such occasions. In some other states there is boundless enthusiasm. In New York, Ohio, Indiana and Illinois, the annual meeting of the Teachers' Association is attended by crowds from every quarter. The teachers who attend are of all grades—from colleges, union schools and common schools. The phenomenon is worthy of consideration, that in Michigan these three grades of teachers stand in almost complete isolation from each other. From the five colleges, Adrian, Hillsdale, Kalamazoo, Albion and Olivet, and from the University, there is scarcely a representative at the Teachers' Association. It is not to be supposed for a moment that those who should be leaders in educational thought forbear to counsel with those who are seeking for instruction, and who need encouragement. Nor is it reasonable to ascribe this phenomenon to lack of zeal, or to a feeling of caste.

Prof. EWING, of Saginaw City, is making preparations for this meeting. It seems probable that at least some of the railroads will grant half-fare tickets. This part of the State is exhibiting great enterprise in educational affairs, and a meeting amid such surrounding will tend to quicken the zeal of all who may attend. East Saginaw, Saginaw City, Flint, Bay City and

Pontiac, have each schools in charge of enthusiastic teachers, and we may anticipate a large attendance from these and adjacent portions of the State.

In one respect there is real cause for congratulation—our Association is entirely free from the manipulations of cliques. For several years, at least, it has not been "run" in the interest of any party, publishing house, book agent, or office seeker. There is not even excitement enough in the election of officers to stimulate a healthy zeal. We do not recollect an instance in which the report of the committee on nominations has not been unanimously adopted.

One of those appointments eminently fit to be made, was that of the Rev. Mr. COCKER to the chair of mental aud moral philosophy, in the University. The incumbent is peculiarly fitted, both by natural taste and acquired ability, for this department. Prof. COCKER has a book in press on speculative philosphy; and from all we can learn, it will prove an important contribution to a department of thought little cultivated by American scholars. This appointment, and that of Dr. McCOSH to Princeton, encourage the hope that speculative philosophy will be more enthusiastically cultivated in our schools, and thus modify, to some extent, the almost wholly utilitarian phase of American mind.

It is the custom in the universities of Europe for professors to publish works what embody the results of their studies as scholars and teachers, in a particular field of thought. In no other way is it possible to give the world the benefit of individual discoveries. Scholars thus become cosmopolitan, and give immortality to what would else perish at their own death. Our University is beginning to follow this good custom. There have recently appeared several works of permanent value. The *Theoretical Astronomy* of Prof. WATSON has been republished in England, and is a standard authority at Oxford and Cambridge. Prof. EVANS' *Life of Lessing* and *History of German Literature* are works which have received universal commendation. The *Rhetoric* of Dr. HAVEN is becoming one of the most popular text books on this subject. The classical works of Profs. BOISE and

FRIEZE have long been recognized as standard works in their respective departments. We have already referred to Prof. COCKER'S forthcoming work. Besides these, there are soon to be added two works on algebra, by Prof. OLNEY, one of which is now in press by Messrs. SHELDON & Co. An examination of advance sheets has convinced us that in all important respects this treatise will be superior to any in use. The first book will extend through quadratics, including proportion, progressions, and an elementary view of logarithms. This book will be the only one needed, except by those in a college course who wish to make mathematics a specialty. The second book will begin *where this one ends.* Some of the peculiar excellencies which we observe, are the following:

1. The distinctness with which each topic is made to stand out, both in the arrangement and in the typography.

2. The more philosophical view of the subject as a whole, as well as in its details.

3. The direct form of proofs and demonstrations. The pupil is thus put in the path of original investigation. This is a most admirable feature.

The first book will probably be issued early in the next year.

The following resolution, passed at the June meeting of the Michigan State Sunday School Convention, held in Niles, is, we think, not yet generally known by the County Superintendents of the State, and we are not aware that it has before appeared in print:

Resolved, That we hear with gratification that a number of our County Superintendents of Public Schools interest themselves in ascertaining the condition of the Sabbath Schools in their respective counties, and that we respectfully request the State Superintendent of Public Instruction to do what he can, consistently, to secure complete reports of the Sabbath School of the State through this instrumentality. We also instruct our Executive Committee to make special efforts to secure this end at the earliest practicable time.

We had hoped to publish the Programme of the Teachers' Association in this number, but the copy has not been received. It will appear in our next.

PRACTICAL DEPARTMENT.

SUGGESTIONS FOR TEACHERS' INSTITUTES.—It is a good idea, when practicable, to proceed in the same order in which things occur to the teacher in practice. Begin with a lecture on school organization and general economy; have another (to be followed by a discussion, which will call out the leading members) on school government and discipline; then proceed thus, in the order of topics: Reading (primary and advanced), Arithmetic, Geography, Grammar, Writing, Spelling, extra studies (as Physiology, Government, etc.), and miscellaneous matters. At about the close of the third day all minds will be wearied, and the evening should be given to a sociable, or an elocutionary entertainment, or other recreation. The "question box" is a never failing means of entertainment and instruction. An occasional hour of the day or evening sessions may be profitably given to arithmetical recreations, correction of popular errors in syntax and pronunciation, geographical exercises, and the like. We give an illustration of a geographical game, invented by the Hon. HORACE MANN, and used at his Institutes with much success. It may be found at greater length in ROOT'S *School Amusements:*

The teachers arrange themselves on opposite sides of the room, forming, however, a continuous line. One standing at the end repeats the name of a town, with its State or country, as "Detroit, Michigan." The final letter of Detroit is the initial with which the next must begin another name of a town, as "Troy, N. Y.;" and thus on through the line. Before starting upon the second round, the following rule is given: Any one repeating the name of a town, or failing to give the State or country to which the town named belongs, or to give a correct name within one minute after the next preceding one, *must sit down*. The victory, of course, belongs to the one who last remains standing.

This exercise may be varied in many ways, with a little ingenuity. It is a good one for schools, as well as Institutes.

H. A. F.

Keeping children after school is in every respect a bad practice. It annoys both teacher and pupil; and is an evil which perpetuates itself. Pupils who are kept after school usually go home out of humor with teacher and school generally. It should be a constant aim to arrange things in such a way that every pupil may go home *feeling happy*. The result aimed at by this practice may, in most cases, be worked in other ways. The natural consequences of poor lessons would seem to be a falling in rank. In graded schools, pupils who neglect their lessons, may be placed in lower classes, even in a lower department.

To secure attention, and to cultivate a habit of concentrating the mind on a given subject, we do not know of an exercise equal to *Telegraphic Arithmetic*, as it is sometimes called. This consists in making *rapid combinations* of numbers, as they are dictated by the teacher. The following will serve as an illustration.

Take 4, *add* 10, *subtract* 2, *multiply by* 3, *extract square root*, *divide by* 2, *add* 7, *multiply by* 10, *add* 21, *extract square root*, *add* 1, *divide by* 5.

These combinations should be given slowly at first, but finally with the utmost rapidity.

The best example of this drill we ever saw was at Coru na, in a class taught by Prof. VAN DORN. More than seventy combinations were given, as rapidly as one could talk, while a pupil was playing *Captain Jenks* on a melodeon; but notwithstanding the attempt to distract attention, the final result was instantly given by the whole class.

Of course, it is easy to make too much of such an exercise. In itself, it does not indicate scholarship, but as a *mental gymnastic*, it is invaluable.

A teacher can scarely do a more *practical*, *sensible* thing than to secure profitable reading matter for the coming year. We most enjoy reading that which is *our own*. Habitual book borrowers are to be pitied. To be truly *enjoyed*, a book or periodical must be property bought with our own money. To accommodate our subscribers, we will furnish the TEACHER ($1.50) and either of the following, at the annexed rates:

$10.50. Webster's Illustrated Unabridged Dictionary.

$8.50. Littell's Living Age.

$6.00. Webster's National Pictorial Dictionary.

$5.50. The Nation, Every Saturday, or Eclectic Magazine.

$4.75. Atlantic Monthly, Harpers' New Monthly, Harpers' Weekly, Ladies' Bazar, or Putnam's Magazine.

$4.00. Godey's Lady's Book, or The Scientific American.

$4.50. The American Naturalist.

$4.83. The Appletons' Journal.

$3.50. Phrenological Journal and Life Illustrated, New York Independent and a print of both Grant and Colfax, which are sold at the stores for $4, or The Advance.

$3.25. Oliver Optic's Magazine.

$3.00. Our Young Folks, Peterson's Ladies' Magazine, Ladies' Friend, Riverside, Echo, Arthur's Home Magazine, Arthur's Once a Month, or Good Health.

$2.50. Arthur's Children's Hour, The Manufacturer or Builder, or National Sabbath School Teacher.

Book Notices.

THE ILLUSTRATED PRACTICAL ARITHMETIC. By GEO. A. WALTON, A. M., and ELECTA N. L. WALTON. Boston: *Brewer & Tileston.*

In many respects this is a good book. Its general plan is worthy of commendation. Each topic is introduced by simple illustrations. Analysis preceeds synthesis.

Certain obsolete matters and methods are wisely omitted; such as Eaglish Notation; much of Compound Numbers; Duodecimals; Alligation Alternate, and Annuities.

One of the principles according to which the book is constructed is this: *Usually but one process is taught for a particular operation, and this the most practical.* In proof of this, we are referred to Subtraction. Here we find the method of *borrowing one from a left hand figure*—a method which is not followed by one in a thousand. In Proportion we find the usual stupid rule, beginning, *make the number that is of the same kind as the required answer the third term.* Except a few such blunders as these, which a competent teacher can remedy, the book is an improvement on very many now before the public.

A TEXT BOOK OF CHEMISTRY. By LEROY C. COOLEY, A.M. New York: *C. Scribner & Co.*, 1869.

In the compass of 221 pages, this book comprises all the great facts on Chemistry which the ordinary student is expected to learn. A course of study is here presented which can be learned in two terms of ordinary length. The student is spared the usual dull preliminary treatise in Electricity, Crystalization, &c., and is introduced at once into the delightful science itself.

THE ELEMENTS OF ASTRONOMY. By SELIN H. PEABODY, M.A. Cincinnati: *Wilson, Hinkle & Co.*

THE ELEMENTS OF THEORETICAL AND DESCRIPTIVE ASTRONOMY. By CHARLES J. WHITE. Philadelphia: *Claxton, Remsen & Haffleinger.*

These two books are upon the same general plan, and both are adapted to the purpose of instruction In each there are clear illustrations of the various definitions, and each step is made as plain as possible by well devised diagrams. Mr. WHITE'S treatise pre-supposes a considerable acquaintance with mathematics, and is more especially designed for use in college. Mr. PEABODY has written a most excellent book,—one which may be used in high schools and academies. Many of the illustrations are entirely new, and give a peculiar value to the work. We have seldom examined works which we can commend with so little exception.

WHATELY'S ELEMENTS OF LOGIC. THOMPSON'S OUTLINES OF THE LAWS OF THOUGHT. New York: *Sheldon & Co.*

DAY'S ELEMENTS OF LOGIC. New York: *C. Scribner & Co.*

SCHULER'S LOGIC. Cincinnati: *Wilson, Hinkle & Co.*

HAMILTON'S LECTURES ON LOGIC. Boston: *Gould & Lincoln.*

HAMILTON'S DISCUSSIONS. MILLS' LOGIC. New York: *Harper & Bros.*

An article on corporal punishment recently appeared in one of our cotemporaries, in which the writer reasoned as follows:

"A teacher in Chicago punished one of her pupils with a rod: The child immediately became sick, and soon after died. This is argument conclusive against corporal punishment."

We submit the following specimens of similar reasoning, which are equally valid:

"The ink in a small stone bottle was found to be bad. *Ergo, all ink contained in small stone bottles is bad.*"

"A boy caught cold from bathing in a *river*, and in consequence died. Hence, boys should never bath in *rivers.*"

"A man who had a violent fit of the ague, chanced to fall into a fish-pond. From the time of this occurrence he never had the ague. Hence, to cure ague—fall into a fish-pond."

"A lady once lost her life by inhaling chloroform. Hence, chloroform should never be inhaled."

"A bad boy was recently whipped by his mother, and was from that time well disposed and obedient. Hence, all bad boys should be whipped."

These are common specimens of popular logic, constructed upon one plan, and all equally conclusive. Every-day judgments are formed, and carried into practice, which are just as absurd as the specimens given above. After this manner actions are weighed, reputations judged, and lines of conduct marked out. There is no one who does not suffer daily, in mind, body or estate, from fallacies as palpable as those we have quoted.

Is there any remedy for such a state of things? Granting, that a man is blessed with ordinary understanding, there is no question but that even a moderate acquaintance with the principles of logic will render such perverse uses of reason impossible. We ask, with all candor, what can be more truly *practicable* than the possession of an art which shall enable its possessor to shun such errors in reasoning as are of daily and hourly occurrence? It has been the custom to ridicule the pretentions of logic, as an art which the learned never employ, and the unlearned never miss; but among those who are entitled to give an opinion on the subject, there is but one conclusion, and that is to exalt its importance, both as a means of mental culture, and as an art of the highest practical value.

Hitherto the study of logic has been restricted to our colleges, and even here it has been studied from compulsion rather than from choice; while in our high schools, the study is unknown. This neglect is due, in a great degree, to the fact that teachers have been practically ignorant of its value, and that there have not been text books adopted to the wants of ordinary students.

WHATELY'S LOGIC has long been a standard work in Great Britain. Its appearance formed a new era in the study of the science. It was a vast improvement on previous text books, and is still one of the best in use. It is not without its defects in matter and method, as may be seen by reading HAMILTON'S review of it. (Discussions.) It may be used with great advantage, and in some respects is superior to any of the works above mentioned, as an art book.

THOMPSON'S OUTLINES is a thoroughly good book. It is less elaborate than the first, and requires in a beginner more ability and closer study.

DAY'S LOGIC is a tolerable good book, not really good nor decidedly bad. It is in no respect superior to the two first mentioned, and in respect to originality, is not all to be commended.

SCHUYLER'S LOGIC is but a mere compendium of dry abstractions—a mere "skeleton in armor." What it says is true, but its whole arrangements is so hopelessly bad, that any attempt to use it would forever disgust pupils with the study. Its only possible use would be in a class of mature thinkers in charge of a teacher who is a profound logician.

The last three works are mentioned in this notice only for the benefit of those who may wish to procure them for purposes of extended study.

BENEDICITE; ILLUSTRATIONS OF THE POWER, WISDOM AND GOODNESS OF GOD, AS MANIFESTED IN HIS WORKS. By G. CHAPLIN CHILD, M.D. New York: *G. Putnam & Son*, 1869. Adrian: *C. Humphrey & Co.*

The full title of this book sufficiently indicates its character. It is an impressive and masterly survey of the wonders of creation, and its perusal can hardly fail to inspire the reader with more profound feelings of wonder and reverence. Besides its intrinsic worth, this is one of the most elegant specimens of book-making we have ever seen. The typography, paper, binding and ornamentation are faultless.

No. CCXXV. of the NORTH AMERICAN REVIEW is of especial interest. "The Genesis of Language," by JOHN FISKE, is a valuable contribution to linguistic science. We commend the perusal of this article to all our readers who are interested in the study of language. Among the "Critical Notices," that of MUELLER'S "Chips from a German Workshop" is admirable for its general style.

HOURS AT HOME has an attractive table of contents. "Books and Reading," by Prof. NOAH PORTER, is full of valuable matter.

We have seldom read so many sensible, really valuable articles, as we find in GOOD HEALTH. (Boston: 24 Franklin street.) "Our Drinks," is the most temperate discussion of the use and abuse of alcohol we have ever read.

THE JOURNAL OF SPECULATIVE PHILOSOPHY fully maintains its high standard of excellence. Without subscribing to the doctrines of FICHTE and HAGEL, the lover of philosophy will be interested in this journal.

EDUCATIONAL INTELLIGENCE.

MATTERS AT HOME.

PRESIDENT JAMES B. ANGELL, of the University of Vermont, who was elected to the Presidency of the Michigan University, wrote a letter of declination about the 20th ult., stating that he regarded it as his duty not to desert at present the "little struggling institution" of which he has charge. This letter was read by acting President FRIEZE to the students on the 22d, and an active canvass on the part of the press, and the alumni and students of the University, was begun at once for his successor. It is said that the Regents of the institution have determined to make no more offers at present, but to go on with the best instruction and administration of the university they can command with the present faculty.

There are 321 students in the Literary department of the University; 238 in the Law School, and 282 in the School of Medicine.

Prof. WATSON is announced to be preparing a work on Descriptive Astronomy, which will appear next year. Prof. WINCHELL has opened the students' lecture-course with his lecture on "The Stone Folk, or Primeval Men."

A number of changes were made by the County Boards of Supervisors, at the annual meetings, in the time, pay and allowances of the County Superintendents of Schools. In Berrien county (not Calhoun, as misprinted in our last), an addition of 25 days, at $5 per day, was made to the time of the Superintendent. In Cass Co., an order was made, directing the Superintendent to submit a detailed account, stating the manner in which the time charged for is occupied. In Genesee Co., the Superintendent's salary was fixed at $1,200 per year, and $250 was allowed him for incidental expenses for the year beginning on the 1st of last May. In Oceana Co., the salary was fixed at $4 per day, and at the same in Tuscola. In Van Buren Co., it was cut down to $3 per day. In Wayne Co., a resolution was adopted constituting the whole Board a Committee to examine into and report on the propriety of discontinuing the office of County Superintendents of Schools. Supt. BROWN'S application for the restoration of his *per diem* to $5, (it having been reduced to $4,) was not granted. In Barry Co., the time of the Superintendent's service was fixed at 2~5 days, at $3 per day, with $100 tor incidentals.

ALLEGAN COUNTY.—The annual meeting of the County Sunday School Association was held at Otsego during three days of the last week in October, and is reported as "an unusually profitable session."

ALPENA COUNTY.—Five years ago, Alpena village had less than a hundred inhabitants. It has now about 3,500, with a fine Union School-house five churches, etc., etc.

BARRY COUNTY.—A Sunday School Convention assembled in Hastings on the 2d inst., for two days' session. It is proposed to organize the county thoroughly for the Sabbath School work.

In answer to an inquiry, Supt. PALMER has received the following official letter, which is of general importance:

LANSING, Oct. 18th, 1869.

J. H. PALMER, ESQ., *Co. Supt. of Schools:*

DEAR SIR:—Yours of the 18th inst. is received. The law authorizing a ratebill was abolished July 2d. How can a ratebill be collected with a law for it repealed?

That repeal does not "impair the obligation of contracts." No district contracted with a teacher to pay by a ratebill. That was only a private expectation of one party. Suppose a parallel case. Is it lawful to hunt deer? I am a hunter. I buy a hog of you, to be paid for in six months. I intend to raise the money, as usual, by killing deer; but before doing so, a law is passed against hunting deer. Does that impair my obligation to you?

Yours, Respectfully,

C. B. STEBBINS,
Dep. Supt. of Public Instruction.

BRANCH COUNTY.—A Teachers' Institute was held at Union City, beginning on the 3d inst., by Supt. LUCE. Lectures were announced by Rev. E. HOLLIDAY, of Ontario, F. D. NEWBERRY, and others.

BERRIEN COUNTY.—Supt. FORD held two signally successful County Institutes at Buchanan and St. Joseph, during the last fortnight of October. They were attended by over a hundred and fifty members—being *one for every school district* in the county. Lectures by Prof. J. GOODISON and J. R. WEBB, Supt. CLEVELAND, of Van Buren, Principals BARRETT and STILWELL, JAY W. COWDERY, ESQ., and Mr. J. H. ROLFE.

Principal EDWARDS has instituted a successful system of monthly examinations in the departments of the Niles Union School, which he conducts in person.

Rev. GEO. S. HICKS, late of the Union School at Buchanan, has taken charge of the schools at New Buffalo.

A large frame school-house is being completed at Galien. It will be seated with the improved furniture, and costs $2,500.

CLINTON COUNTY.—The County Teachers' Association met at Maple Rapids, on the 29th ult., for its semi-annual session. The question of compulsory school attendance was discussed at length, and a resolution condemning it voted down. The following resolution was adopted, by a vote of 40 to 16:

Resolved,—That ladies ought to receive the same compensation for like success in teaching, as that paid to gentlemen.

EATON COUNTY.—A normal class was organized at Charlotte in September, in the Union School, under immediate charge of Principal O. S. INGHAM.

Supt. TOWNSEND, Profs. SILL, BAILEY and MCLOUTH, delivered lectures before it and the citizens of Charlotte, which are highly spoken of. After about six weeks' session, an examination was held by Supt. TOWNSEND, at which 48 teachers appeared, most of whom sustained a successful examination.

GENESEE COUNTY.—There are 87 non-resident pupils attending the public schools of Flint. They have increased so rapidly since the beginning of the term, that a new series of classes has been organized in the Grammar School, and another teacher employed. A room in the City Hall building has been fitted up for their accommodation. It is seated with RANKIN'S improved combined desk and seat, so constructed that each desk and seat has but two legs. Mrs. MARIA P. GRANT, of Burnside, Lapeer county, has been added to Prof. TRUESDELL'S corps. The second term of the High School began on the 8th inst. Prof. JONES, of Ann Arbor, made the tour of the Flint schools lately, with much satisfaction to both visitor and visited.

Supt. PERRY is certifying about two-thirds of the teachers who apply at his fall examinations.

HILLSDALE COUNTY.—President E. H. FAIRCHILD, of Berea College, Ky., declines the "semi-lunars" offered by Hillsdale College. The new President Dr. CALDER, has arrived, and was formally welcomed to the scene of his future labors by Prof. WHIPPLE. Dr. C. responded in a short speech. He promised not to give himself or the people any rest until $200,000 should be added to the funds of the college.

INGHAM COUNTY.—A correspondent writes to the Lansing *State Republican* in high praise of the schools of that city. Among other pleasant things, he says: "Each of the teachers is evidently a worker—a willing and interested worker;" "Our schools are truly and soundly progressive," etc.

The Commencement exercises of the graduating class at the Agricultural College, occurred on Monday, the 10th inst. Ten members were in the graduating class, all of whom have been teachers, and all but one are farmers' sons. President CHADBOURNE, of Wisconsin University, delivered the oration on the occasion.

CALHOUN COUNTY.—The Board at Battle Creek have adopted the plan of the Adrian central building, and have bought the working plan and specifications. The house is to cost $75,000.

IONIA COUNTY.—The Union School opened at Saranac on the 3d ult., under the superintendence of Principal O. G. WEBSTER, with Miss CARRIE BOWEN and Miss LOVINA HOLMES as principals in the intermediate and primary departments, and an efficient corps of assistants.

IOSCO COUNTY.—A new school-house has just been completed at Au Sable, at a cost of $3,000, and the contract for another has been let, to be a large one, and located on the other side of the river. There are only about a thousand inhabitants in the place, though the population has doubled within a year.

THREE RIVERS.—An improvement long needed is soon to be made in the Union School. A recitation room is to be fitted up, and an assistant teacher employed, in order to allow Prof. STONE time for general supervision.

ISABELLA COUNTY.—Supt. JOHN YOUNG has resigned, and Prof. T. E. HARRISON has been appointed in his stead. Supt. H. writes: "So far as my experience extends, I find the schools in rather a backward condition. The newness of the country affords an excuse. There are about thirty schools in the county. Three school-houses were built during the past year."

JACKSON COUNTY.—There are about 2,700 children of school age in the city of Jackson, and school property to the value of $130,000. The Kalamazoo *Telegraph*, noting these facts, and also that its own village owns school property to the value of only $70,000 to $75,000, to provide for nearly 3,000 children, rightly thinks the former a "liberal provision for the coming generations."

Supt. BENNETT has issued the first number of a neat educational quarterly, of eight pages, entitled *The Jackson Monitor*.

KALAMAZOO COUNTY.—Prof. WAYLAND kindly writes:

"The Board of Trustees of Kalamazoo College have elected Rev. SAMUEL BROOKS, A.M., of Medway, Mass., as Professor of Natural Science and Instructor in Latin, in place of the late Professor CLARK. Professor BROOKS is a graduate of Brown University, of the class of 1852, and also of the Newton Theological Seminary. He is a man of fine scholarship, eminently fitted by native endowments, by habits, and by experience, for the duties to which he has been called. It may be expected that he will commence his instructions with the opening of the coming term."

Supt. SMITH concluded a successful three-weeks' county institute on the 6th inst. Resolutions was passed complimentary to the Faculty of the College, Prof. GOODISON, and others who had assisted in the instruction.

Mrs. Dr. STONE has a class of over 100 ladies, who meet weekly under her direction, for the study of American history.

KENT COUNTY.—The Kent Scientific Institute, having headquarters at Grand Rapids, is making a vigorous effort, which it is thought will be successful, to raise funds for the sending of Prof. J. A. MCNEIL to Central America, for further explorations among the antiquities of that interesting region.

Supt. FALLASS has issued a circular, announcing an official list of text books, for the introduction of which ex-Supt. BICKNELL has taken the agency.

LENAWEE COUNTY.—The entire enrollment of pupils in the public schools at Adrian during September and October was 1,680. There are 28 schools and 32 teachers. There have recently been purchased a library of 800 volumes, worth $1,500; chemical and philosophical apparatus, worth $700; and a Steinway piano, worth $650. The laboratory is one of the most complete in the State.

ST. JOSEPH COUNTY.—Supt. ANTISDALE has just held a County Institute at Constantine. The attendance was good and the spirit of the teachers admirable. Lectures were given by Mr. and Mrs. SPAULDING, of Sturgis, and by Supt. PAYNE, of Adrian. A County Teachers' Association was formed, and a meeting appointed for the holiday vacation.

LAPEER COUNTY.—The legal difficulties in regard to the location of the schoolhouse in Dryden have been settled, and the site has been fixed on a two-

acre lot, situated in the north part of the village, on the estate of the late Asa Huntely. The District Board call for sealed proposals for the construction of the school-house, to be completed by August, 1870.

LENAWEE COUNTY.—The new Central School building in Adrian has been completed, and is occupied by about 1,000 pupils. It is pronounced "the finest and most complete school building in the State." Some thirty teachers are under Principal PAYNE'S supervision. The classics maintain their place in the High School curriculum.

MUSKEGON COUNTY.—We are indebted to Supt. LOOMIS for a full report of the large and interesting County Institute held during the week beginning Oct. 11th. He was assisted by Profs. GOODISON and WHITNEY. Repeated visits were made by the Institute to the Muskegon city schools. A County Teachers' Association was organized.

MACOMB COUNTY.—The fall term of the Union School at Romeo opened with the following corps of teachers: E. BARTON WOOD, A.M., principal; Miss ROUND, assistant in High School; Mr. KNAPP, Grammar School; Mr. FORBES, principal First Intermediate Department; Miss WOOD, assistant First Intermediate Department; Miss AYERS, Second Intermediate Department; Mrs. WARD, North Primary Department; Miss SELLECK, South Primary Department. Mr. WOOD has been principal for two years, and is stated to have given good satisfaction.

At the close of the State Institute, recently held in Romeo, Supt. BRIGGS was presented with a handsome silver table service, suitably inscribed, and costing $60. Principal WOOD made the presentation speech.

SAGINAW COUNTY.—The school property of East Saginaw is valued at $95,000, and the wages annually paid to the teachers exceed $13,000.

The second semi-annual meeting of the Flint District Sunday School Teachers' Institute met at the new M. E. Church in East Saginaw, on the 19th inst. A profitable meeting was held.

A late number of the Saginaw *Enterprise* has the following:

"A case of punishment by a teacher in one of the schools of this city, came before the Board of Education a short time since, and was referred to a committee for investigation. At a meeting last evening the committee reported that the case had been examined into, that the punishment was not attended with malice, but 'an undue appreciation of the thickness of the boy's clothing.'"

TUSCOLA COUNTY.—A County Teachers' Institute has been held, at which a County Association was formed, which was to meet at Cass, on Saturday, Nov. 13.

VAN BUREN COUNTY.—The Union School-house at Paw-Paw is filled to its utmost capacity. Seven teachers are employed. The walls of the new school building are up. It will be seated with single seats.

WASHTENAW COUNTY.—Mr. S. R. WINCHELL, late Principal of the Flint High School, and a member of the present senior class in the University, has just been elected Principal of the High School in Ann Arbor.

Prof. E. JONES, of the Union School, was attacked a few days since by a female named RAPALJEE, and struck several times in the face with a whip, for punishing her son in school.

WAYNE COUNTY.—Supt. BROWN makes an interesting Annual Report of the condition of educational affairs in his county. We extract from the report in the *Daily Post :*

"Within the past two years large and commodious union school buildings have been erected, and are now in successful operation, accommodating about 1,200 pupils, in Belleville, Flat Rock, and Wyandotte. The estimated cost of the same is about $60,000. In the village of Wayne, $20,000 have been appropriated for the erection of another the coming year. In the several townships ten good and substantial district school-houses of brick, with stone foundations, and twelve new school-houses of wood have been erected. These, together with the aggregate appropriations at the last annual meetings for repairs, reseating, etc., will make an estimated expenditure on school-houses and grounds, within the past two and a half years, of $145,000. These buildings are all substantially built on the most approved plans, with a few exceptions.

"The Superintendent thinks that teachers, on a general average, are 30 per cent. better to-day than under the old system of school management. Of the number of teachers applying for certificates over 240 applicants have been rejected. Since the last annual meeting 348 school visits have been made, 30 district boards have been consulted with, 40 school meetings have been attended, 5 serious district quarrels have been adjusted; the closing services of 34 schools have been attended, 4,000 miles traveled, 693 business letters written, 252 certificates granted, 223 third grade, 23 second grade, and 7 first grade, and 30 have been altogether rejected; 1,200 circular letters and 2,000 copies of the *Common School Assistant* have been mailed. In August last a County Association of teachers was organized. The Superintendent urges the building of a school-house at the County Poor House for the accommodation of the children connected with that institution, of which there are an average of 40 to 45."

Principal D. E. THOMAS writes from Wyandotte :

"I assumed charge on Sept. 13th, and organized the schools in the new building (just finished at an expense of $25,000), and in the First Ward building. Miss BELLE WIDNER, late preceptress at Marshall, is preceptress; Miss ELLEN DALY and Miss ELLEN MCMAHAN have the Intermediates, and Miss JENNETTE STUART and Miss ALICE TEWKSBURY the Primaries. Miss LIBBIE STRINGLEMAN is in the First Ward. I abstract the following from my first monthly report :—No. enrolled, 625; average No. belonging, 571; average attendance, 497; average No. late, 7·8; per cent. of attendance, 87; per cent. late, 1.3, belonging at date, 560. No. of visitors, 123."

Prof. WINCHELL, of the University, is delivering a valuable series of lectures on geology to the teachers of the public schools in Detroit. About $11,000 was distributed to them in the quarterly payment of their salaries on the 31st ult.

The two rooms added to the Trowbridge School, 17th street, Detroit, are completed, and are being occupied.

PROGRAMME

OF THE SIXTH SEMI-ANNUAL MEETING OF THE MICHIGAN ASSOCIATION OF COUNTY SUPERINTENDENTS, TO BE HELD IN SAGINAW CITY, MONDAY AND TUESDAY, DEC. 27TH AND 28TH, 1869.

MONDAY.

EVENING.—Address by the Hon. JOHN D. PIERCE, of Ypsilanti, ex-State Superintendent of Public Instruction. Subject: "Our State Institutions."

Appointment of Committees, and Miscellaneous Business.

TUESDAY,

9 A. M.—Report on Superintendents' Records, etc., Supt. W. I. BENNETT, of Jackson.

9:30—Paper on Educational Lectures, Institutes, etc. Supt. JAS. F. COVEL, of Montcalm.

10:30—Discussion of the School Library System. Supt. IRVING CLENDENEN, of Cass, will lead.

11:00—Paper on "The Educational Needs of Michigan." Hon. C. B. STEBBINS, Deputy State Supt. of Public Instruction.

1:30 P. M.—Report of Committee on Nomination of Officers, and Miscellaneous Business.

1:45—Paper on "The Relation of the County Superintendent to Educational Reform. Supt. P. M. PARKER, of Oakland.

2:30—Report on "The Township School System." Supt. DAN'L BRIGGS, of Macomb.

3:45—Paper on "The Organization of Normal Classes in the Public Schools of the State." Supt. P. M. PARKER, of Oakland.

3:45—Paper on "The Organization of Normal Classes in the Public Schools of the State." Supt. C. G. TOWNSEND, of Eaton.

EVENING.—Discussion (jointly with the State Teachers' Association) of the question: "*Should the State compel the education of the children?*" Supt. J. S. GOODMAN, of Saginaw, will lead the affirmative, and Principal C. L. WHITNEY, of Muskegon, the negative.

For the Executive Committee.

Niles, Nov. 10th, 1869. HENRY A. FORD, *President*.

[The necessity of publishing the above in this number of the TEACHER must be an apology for inserting it before all the gentlemen named have signified acceptance of their appointments. It is expected that the programme will be very nearly as here given. H. A. F.]

MATTERS ABROAD.

AMERICAN.

An American Academy of Literature, Science and Art has been organized at Washington, D. C., after a mooting of the project for the last year or two. It has the same general object and scope of the famous and venerable French Academy, and is formed "on the most liberal principles, without restriction as to number of members." Some of the most eminent men of learning in the country were present at the organization. The Presidency has been accepted by Dr. JOHN WILLIAM DRAPER, the distinguished physiologist and philosopher, of the University of New York. A. R. SPOFFORD, librarian of the Congressional Library, was chosen corresponding secretary, and W. D. GALLAGHER, formerly a journalist of Cincinnati, recording secretary. The institution will, we trust, be a permanent educational force in this country, of the highest order.

An important meeting of the American Social Science Association was held in New York, during the last week in October. A number of papers of unusual interest and value, was read by leading statesmen and scholars,—among them the following: "Civil Service Reform," by GEORGE W. CURTIS; "An International Code," by DAVID DUDLEY FIELD; "The Census of 1870," by Gen. G. A. GARFIELD; "Public Libraries of the United States," by A.

R. SPOFFORD; "Change in Mode of Election of United States Senators," by Hon. JAMES G. BLAINE; "Procedure in Contested Election Cases," by Hon. H. L. DAWES.

A local Association for the Promotion of Social Science has just been organized in the city of New York, with Mr. MORAN, one of the railway kings, at its head.

The Western Social Science Association, organized a year ago in Chicago, will hold no annual meeting this fall, but is expected to assemble in the same city next spring. No progress is yet made in the publication of its first volume of "Transactions."

ALASKA.—Several chiefs of the Sitka Indians have had an interview with Mr. VINCENT COLYER, the United States Indian Commissioner, and desired him to cause schools and hospitals to be established among them. They promised to use their best endeavors to secure the attendance of their children and unemployed grown people at schools, and to find help to aid the Sanitary Superintendent in his efforts to cleanse and improve their village.

ARKANSAS.—An educational monthly is shortly to be published in this State. It is said that though it has innumerable political newspapers, it has not one devoted to agriculture, manufactures, or education.

CONNECTICUT.—A Girls' Industrial School has been established by a private corporation at Middletown, for the reform and instruction of such young females as may be sentenced to it by the judges of probate, whose board the State pays, and others. It has a farm of 46 acres, with good buildings, and a fund of $70,000.

The State Normal School has been re-opened at New Britain, and has fifty-five students, including representatives from every county in the State. Connecticut will soon come to the front again in educational matters. Prof. J. N. CARLTON, of Medford, Mass., is Principal. Profs. GREENE, of Brown University, MONROE, of Boston, RICE, of the Wesleyan University, RUSSELL, of Trinity College, and THACHER, GILMAN and BREWER, of Yale, are to lecture during the term.

ORANGE JUDD, proprietor of the *American Agriculturist*, has given to the Wesleyan University, at Middletown, $50,000, for the erection of a building for the Department of Natural Science.

A female school teacher at Manchester is reported to have recently compelled a delicate and sensitive little girl, 8 years of age, to stand upon the floor of the class room for five hours, for the reason that she could not answer a question in geography. The little girl went home in a state of such nervous excitement that brain fever ensued, and she died within forty-eight hours.

Cornell University has reopened with a Faculty of twenty-eight resident and six non-resident professors. Every State in the Union, except five, is represented among the students of the University.

VIRGINIA.—A "class in journalism" is to be introduced into Washington College. The editors rightly designate this as "an educational humbug."

The Michigan Teacher.

Vol. IV.—ADRIAN, DECEMBER, 1869.—No. 10.

To Mr. —— ——, County Supt. of Schools.

DEAR SIR:—Your letter, addressed to Mr. FORD, in reply to his circular letter, is at hand. We are grateful for the cordial manner in which you write, for your expressions of good will to the TEACHER, and for suggestions as to its future management. From an attentive perusal of your letter, we are persuaded that you misapprehend certain "stubborn facts" relating to the publication of this journal; and as we feel sure that others entertain opinions similar to your own, we take the liberty to make a reply in this public manner.

If we understood you correctly, you offer the following advice:

1. *Enlarge the* TEACHER, and
2. *Publish no Advertisements.*

It will be readily understand that the cost of publishing the TEACHER is considerable. We might follow the style of some of our cotemporaries, and use poorer paper, and pay less regard to mechanical appearance; but we have thought that our readers would be best pleased with a journal in every way as beautiful as we could well make it. We have consequently employed the best workmen, and bought the best paper, within our reach. By referring to our books we find the following items:

	RECEIPTS.	EXPENSES.
1866	$1,492 14	$1,582 81
1867	$1,865 70	$1,900 42
1868	$2,433 74	$2,314 29
	$5,791 58	$5,797 52

Entered according to Act of Congress in the year 1869, by PAYNE, WHITNEY & Co., in the Clerk's Office of the District Court of the United States, for the Eastern District of Michigan.

It will be seen from this statement, that even with the proceeds from advertising, during the past three years of publication, there was a small loss. We now beg leave to ask: How could we publish a journal of even thirty-two pages without the assistance derived from this source?

You will bear in mind also a fact, which some seem to ignore, but concerning which we feel a little sensitive, that the editorial labor has been given without remuneration. Time which should have been devoted to recreation and to rest has been spent in providing for the TEACHER; and after this expenditure of gratuitous labor, we are obliged to meet a deficit from our own resources. Now, if the TEACHER were a source of profit, or even if the labor of conducting it were but partially rewarded, it might be consistent to ask for an additional outlay; but under existing circumstances, we confess to a slight feeling of injustice, when we are asked *to increase our expenses*, and, at the same time, *to diminish our resources*. For one moment imagine yourself in similar circumstances. Suppose you devoted your Saturdays and evenings to your official duties, receiving no compensation, but incurring necessary expenses, and that you were then asked to make a still greater outlay of time and money! This is exactly the position in which we are placed.

The objection sometimes made to advertisements, is based on the assumption that each page devoted to this purpose encroaches upon space which would otherwise be given to reading matter. In the case of a newspaper, *of invariable size*, this is true; but it must be evident that any journal of the form of the TEACHER, may have advertisements to an indefinite extent, and still not encroach upon space for ordinary reading matter. Advertising is certainly legitimate, and, we firmly believe, useful to reader as well as to publisher. An educational journal is incomplete, unless it tells how and where teachers and schools may buy what is needed for daily use.

There is not, to our knowledge, a single journal in the country which is not supported to a large degree by advertising. We think we may be allowed to do what is done, not only by every educational journal, but by all the leading periodicals in the world.

Without doubt, it is unfashionable to work without remuneration, solely, or even to any considerable extent, for the general good, rather than for self, or for personal ends; but simple truth impels us to declare that the TEACHER owes its origin to a desire to do some possible service in educational affairs. We supposed there was a real want to be supplied, and ventured to tax strength and purse in the hope that the attempt might be successful by the co-operation of our fellow teachers. Looking at the undertaking in the light of experience, it seems hopelessly wild; but enthusiasm is blind, and sometimes urges men forward till they are unwilling to retreat. As was to be expected, serious difficulties have been encountered. Perhaps they were necessary. At least they have seemed unavoidable. We need not enumerate them.

It need not be said that our work has been very imperfect—that it might be improved. We hope its defects are not more sensible to others than to ourselves. Still, after making all proper deductions, we feel justified in asking whether our attempt is not worthy of a more general and earnest support.

While working in this public capacity, we have felt constrained to occasionally express an opinion upon topics of general interest. We have sometimes done this with the almost absolute assurance of sacrificing the esteem of personal friends. It is infinitely more agreeable to say pleasant things than to make an adverse criticism; and nothing taxes one's resolution more than to incur the risk of losing the esteem of friends, when mere ~~silence might~~ preserve it.

The success of the TEACHER has been less than its friends, more than its enemies, have desired. We feel grateful to all who have been able to aid us, notwithstanding our faults; and we go forward to the work of another year cheerfully and hopefully.

Respectfully,

THE PUBLISHERS.

Learn to Use the Mind.

FEW men understand how to use their minds to the best advantage. If we were as ignorant of the uses of gravitation, of the atmosphere, of water, and other natural forces, as we are of the proper regulation of mind, we should make but slow and inconsiderable progress in the arts of civilization. The want of this knowledge is not very complimentary to our practical science. Science itself has recently thrown some new light on the operations of the mind. Such men as Holland, Brodie, Carpenter, Seguin and Bain, have been most usefully engaged in this branch of inquiry, and their investigations, though far from complete, have contributed to the advance of a substantial Intellectual Philosophy. Yet the facts developed seem to make their way sluggishly into the current modes of education and culture. On no subject is the popular intellect so meagerly informed; and on none are our scholarly men so content with moderate attainments.

The most of minds have more strength than they know how to employ. Not only is their force undeveloped, but the development attained in the common activities of life is constantly wasted by methods either false or pernicious. Many, for instance, neglect the right cultivation of the senses, on which all clear and satisfactory perceptions are based. Neither eye nor ear is entirely trustworthy. The same is true of all their sensations. Dupes of fallacious impressions, they are utterly inadequate to those exact processes of intellect which primarily depend upon sensation. The fundamental faculties of mind are thus vitally impaired, and if the substruction is so badly built, what can be expected of the superstructure? This partial and inaccurate training of the lower mind, if not arrested by timely care, prolongs its evil effects through all the subsequent stages of culture. The mind may grow. But the boughs and branches have to bear the misfortune of unnurturing roots. At this point students often fail. Blind to their condition, they locate their want of successful study precisely where it ought not to be located. They think themselves deficient in the higher faculties

that suggest, compare, and generalize, and to these they direct an energetic zeal. But the misspent labor is not remunerative, If they would educate their senses they would soon see the result in their rapid growth of language, in their larger command of expressional images, and in their facility to detect resemblances, contrasts and analogies. After early years this can be done only in an imperfect degree, but better this than not at all.

To get the control of his intellectual faculties one should begin with those that are most manageable by the more mechanical means of culture. This is merely initial work. One of the first signs that a change in the method of discipline is needed is the decay in verbal memory. Along with this the associative function expands from the connections of time and place to the more abstract and remote; the imaging power becomes more active and allies itself with the reason; the mind retreats from the intense energy of the sensational system, and delights in recalling its acquisitions so as to unite them in other forms. At this stage of culture the education of the will is all-important. The habit of close and earnest attention, through which the will operates, should be carefully formed, and coincident therewith, that greatest habit of which the mind is susceptible—the habit of quick and comprehensive suggestion. Every valuable thought should be *made* to suggest some other thought kindred to itself. This is not really difficult. The mind can be easily habituated to a process of nucleating around a given centre by beginning with short and simple experiments on its power of origination, and it can advance from these to efforts more elaborate. Once acquiring this habit of original production, a student has the secret of all profound thinking.

As an invaluable aid in this work of disciplining the suggestive faculty, a thinker should study the operation of thought in other minds. If he reads a first-class book he should never omit to analyze its method of thought. Its facts and truths should never be overlooked; they should be mastered; but *how* they were suggested, *how* they came to assume this specialized form, *how* the art of the constructing mind proceeded in executing its task, these should be exhaustively considered. In this way every book read may become a study in Intellectual Philosophy.

But the student must adopt this plan of reading that he may learn the true *art of imitating*. Genuine imitation is never plagiarism. It is heroically self-reliant and disdains to copy. The method named only conforms to the real laws of thought, and its effect, if legitimately wrought out, is to make the student an original thinker. Such a method will not give a man genius or even talent. It will not transfigure him into another being, but it will help him to make the most and the best of himself. If men succeeded in availing themselves of their capacity by calling out their latent resources, genius would not cease to be desirable, but it would not be so essential to the progress of the world. The peaks of the mountains would not stand so high. The table-lands, however, would be higher.—*Harper's Bazar*.

CHANGES IN MICHIGAN UNIVERSITY.

ON Wednesday of last week the doors of this institution were thrown open, and work began for the coming year. Notwithstanding the departure of Dr. HAVEN, the number of new students is greater than ever before. This is gratifying as an indication that the renown of the university is greater than that of any man connected with it, and that the good ship will move on even without its old captain. We suspect that in the case of all colleges an exaggerated importance is often attached to individual officials. The mass of the people, the majority even of those who intend going to college, know but little and care less concerning academic magnates; it is the academy itself whose reputation attracts or repels. All Americans have heard of old Yale. Her fame fills all the land, even as the waters fill the sea. But not one man in ten thousand could tell who is its president, or who are the heads of its various departments. So we think that the friends of Michigan University are too facile at getting into a panic over any personal changes in its faculties. When Dr. TAPPAN left, many of them went into convulsions, and watched for the university to draw its last breath; but the university continues remarkably vigorous and sound, and that last breath seems a long way off. The loss of Dr. HAVEN was

doubtless a serious one; but of the one hundred and fifty men who have just applied for admission to the freshman class, probably one-half learned his name after their arrival in Ann Arbor. A great literary establishment acquires a momentum of its own, which is scarcely affected by the coming or the going of this college don or that one.

While, however, personal changes in the officers of the university have but little immediate effect upon the number of the students, those changes are of considerable interest for other reasons.

Besides the election of Dr. ANGELL to the presidency, two other notable appointments have been made. One of these is the choice of Rev. B. F. COCKER, D. D., as professor of moral and mental philosophy. Of Dr. COCKER we lately spoke when making the first public announcement which has appeared of a work of his now in press, on Christianity and Greek Philosophy. Dr. COCKER is perhaps the leading Methodist preacher in Michigan; and for his wonderful gift of expounding philosophical snbjects, and of throwing both light and fascination upon abstruse questions, he is without a superior in any denomination in the north-west. He has just been assigned, also, to the Central Methodist church of Detroit; but it is hoped that the church will give him np to that service in the university for which he has such uncommon fitness.

The other appointment to which we alluded is that of Prof. A. B. CROSBY, of Dartmouth College, to the important chair of surgery. Dr. CROSBY is the son of the celebrated Dr. DIXI CROSBY, so long a professor at Hanover; and, though still a young man, has had great experience as a surgeon in the army, in the hospital, and in "clinics." He is, also, a man of thorough general culture and a lecturer of great success. During the past year he has given medical lectures at Darmouth, at Vermont University, and at Bowdoin College. It is expected that he will enter upon his duties at Ann Arbor early in November.

Altogether, then, we can honestly congratulate the people of Michigan on the tokens of prosperity which accompany this year's opening of its noble university. We could ask nothing

better than that they should appreciate that university as highly as Eastern men do, and then show their appreciation by their works.—*Independent.*

Beecher on Punishment in Schools.

OUGHT corporal punishment to be inflicted upon children? Many think this is a point already settled, since Solomon declared, "Foolishness is bound up in the heart of a child, but the rod of correction shall drive it far from him." Whether we are to infer from such language more than this, that children need rigorous government, I leave others to decide. It is very certain that good men have been brought up equally well with, nd without the rod. The selection of the *means* of discipline must be left with the parents. If they can maintain good government without inflicting bodily chastisement, all the better.

Some children are easily governed. Some are very susceptible to persuasion and to reason. It may be laid down as good doctrine, that the rod is not to be the first and chief resource, but is to be deferred until all other means have been tried and have failed. Some parents would almost seem to watch for an opportunity to flagellate. They seem to think that the rod is in some mysterious way an instrumemt of virtue—a medium of mystic grace (the very antithesis of "the lying on of hands"), by whose touch certain beneficient qualities are imparted. All government to such, seems to reside in the switch. Only whip enough, and you have cleared your skirts of all blame, whatever becomes of the child.

But the more sensible view is, that the rod should be a thing in reserve; somethiug on which to fall back in extreme cases, when everything else has failed—but to be wholly avoided, if possible—and never used with violence of temper on the parent's part.

1. It should be dedicated to the baser faults. A child should never be struck for inadvertencies, for faults of forgetfulness, for irritability and carelessness, and for petty irregularities. But

for lying, for filthiness, for cruelty to companions or to the brute creation, for downright meannesses, it may be used. It is a coarse remedy, and should be employed upon the coarse sins of our animal nature.

2. When employed at all, it should be administered in strong doses. The whole system of slaps, pinches, snappings, and irritating blows, is to be condemned. These petty disciplines tend to stir up anger, and rather encourage evil in the child than subdue it. To be of any use, corporal punishment should be emphatic, and full of transient pain. *Pain* is the curative element in punishment. It emphasizes, it tends to associate temptation to evil with the receiving of pain, and so furnishes the child a motive for resistance; in case of temper, obstinacy, or cruelty, it acts as a literal counter irritation, and brings down the passional excitement, by raising up a sharp counteracting sensation of suffering. But for any such end, there should be sharp and decisive dealing. Never use the rod for trifles—never trifle with it. Severely, or not at all.

3. In administering physical punishment to a child, the *head* should be left sacred from all violence.

A person who will strike a child in any manner upon the head, deserves to be himself severely punished. Pulling the hair or ears, rapping the head with a thimble or with knuckles, boxing the ears, slapping the cheeks or the mouth, are all brutal expedients. Nature has provided other regions for the exercise of discipline, and to them should it be confined The head is the seat of the mind. It is more liable to injury than any other part. These irritating and annoying practices are far more likely to malignant passions, than to alleviate them.

4. The feeling with which you administer punishment will, generally, excite in the child a corresponding experience. If you bring anger, anger will be excited; if you bring affection and sorrow, you will find the child responding in sorrowful feelings; if you bring moral feelings, the child's conscience will answer back again. Anger and severity destroy all benefft of punishment. Strong love and severity will, if anything can, work penitence and reformation of conduct.

LETTERS TO A YOUNG TEACHER.

IV.

MY DEAR SIR:—It has long been my purpose to offer to the readers of the TEACHER some thoughts on educational philosophy. Indeed, I never should have undertaken a work of this nature, had I not been convinced that a rational *method* might be introduced into all the affairs of the school-room. This feeling was not the result of actual knowledge, for I had yet learned nothing of this philosophy; but it was rather an intuition — a conviction that a rational plan was necessary, in order that results might be predicated with some certainty. Questions like these were ever pressing for an answer: Is it a matter of indifference whether a pupil study Physiology or Chemistry first? In number, should the child be first taught principles or processes? Should the beginner learn letters or words first? Is the same kind of discipline required for childhood, youth and maturity?

It was plain that answers to these queries were conditioned upon laws of spiritual growth, and that a knowledge of these laws would unmistakably reveal the road to success. My mind at once rejected the other alternative, that teaching is an exception to every other art practiced among men, and my attention was thenceforth directed to an inquiry into the conditions of successful teaching. Although I began this investigation without the helps which might have been procured had they been known, I have subsequently read whatever seemed to promise assistance. This has been the occasion of both gain and loss. By reading from the very first, the habit of independent thought might not have been encouraged, and at the same time greater progress might have been made. As it is, I am free to confess that but little has been accomplished; but I am very happy in knowing that even this little light has transformed dull routine into the most delightful employment. It is an intense pleasure to discern future order in present confusion—to predicate results from definitely arranged plans.

While I should have shrunk from any attempt to discuss such a topic in a studied essay, these letters to a personal friend, written with as little premeditation as would seem necessary in an informal conversation, seem to offer an opportunity which has long been desired. I fear you may not derive any direct profit from what follows; but I do hope that you may find my treatment of the subject suggestive. If my conclusions are wrong, you can at least be warned by my mistakes.

Method of Investigation.

In our efforts to construct an educational philosophy, it is evident that we ought not to proceed upon any *a priori* assumptions of what mind is, of what faculties composed, and of their modes and order of development; but rather upon a careful induction of facts as they are presented to our intelligence. But there must be certain assumptions. If we are to construct, we must assume the existence of both a plan and materials. Plato and Locke epitomize the intellectual history of man. To substitute idealism for sensationalism would be as violent an anachronism as to substitute trilobite for mammal in geological history. Philosophy does not begin with seeing, feeling and tasting, but in *reflecting* upon the results of this experience. This at once involves the great fact of a *substratum* — of that which thus feels and tastes. Philosophy is reflection; and the first result of reflection is self-consciousness — the recognition of self as distinct from not-self; and the inevitable order is first that which feels and then that which causes the feeling. Plato is right, then, in assuming that, back of all experience, there is a self-determining power which makes experience possible and gives shape to all the subsequent furniture of the mind; and Locke is right in holding that experience is the necessary occasion of mental growth.

While, therefore, it is admitted that we should proceed from an induction of facts, it is equally necessary to assume some ground of selecting and classifying these facts.

Every argument must finally rest upon an assumption, *i. e.*, something intuitively received as true, but not susceptible of proof. Otherwise there must be an endless retrogression, a

thing inconceivable. Mathematical reasoning is based on certain self-evident truths which it is not possible to demonstrate. Sensational philosophy can not demonstrate the fact that two parallel lines produced can never meet. This is a truth which transcends experience. In speculative philosophy the mind gives its assent to certain truths without asking for their demonstration.

What starting point shall be chosen for these discussions on the philosophy of teaching? I would begin with the following:

The reign of law is UNIVERSAL, *pervading both the world of mind and the world of matter.*

An attempt to *prove* this proposition would probably lead to scepticism; for if the mind should be studiously directed to the hunting up of verifications, it would encounter such a multitude of apparent contradictions as might lead to the opposite belief—that everything occurs by mere chance. Even in physics, where such deference is paid to law, it is difficult to exclude the presence of chance. What is so fitting a type of inconstancy as the blowing of the wind? Yet it is undoubtedly true that even the winds and waves are obedient to fixed laws.

You may think it strange that I have thought it necessary to make a formal statement of a proposition so entirely self-evident. My only vindication is the fact that this proposition is practically denied by a large majority of all who teach.

A belief in this truth would incline every thoughtful teacher to know the laws which control mind, as the only means of teaching and disciplining with the hope of success. If we believe in the existence of a desirable thing, we desire to possess it. How many teachers have you met who seem particularly anxious to discover the principles which condition mental growth? There are vast numbers who have not even *suspected the possibility* of a rational method; while many whose attention has been called to this subject, pity the simplicity of those who *theorize.*

Were I to construct a system of educational philosophy, this principle should be my starting point. Here, it seems to me, is solid ground upon which to build safely. You have expressed a desire to become a skillful teacher, well prepared for your duties, able to devise plans for specific purposes, and to reach results by

a rational use of means. To all such, even my mistakes may be of some use. It will do us all good to look for a plan, even though we miss it after a diligent search.

Yours, *in pursuit of truth*,

W. H. P.

The Teacher's Relation to Educational Reform.

THE opinion prevails among the more advanced thinkers of the day, that an entire reconstruction of the philosophy and practice of education is necessary to its proper and permanent institution. The fact is recognized that educational improvement has not kept pace with the gigantic strides of progress in material affairs; that the march of mind, in the production of better educational apparatus, text-books, and methods, and the promulgation of new ideas, has not advanced *equis passibus* with the intellect engaged in multiplying inventions of the "things that perish." The business of primary instruction is still pursued in the long twilight that has succeeded dark ages. Let us be thankful that it is the twilight of the opening, and not of the closing day.

A fuller and truer philosophy, a radical reórganization, are the words of ambition with our best workers in and for the schools. Reform in education is taken to mean just what the word implies — a forming again, a remodeling, a thorough change, a reconstruction from the foundation. Scarcely a statement of educational philosophy, a fact of school economy, an incident of methods of instruction, is to be left untouched by the reforming hand. This is what the advocates of the "new education" work and wait for.

"I doubt not through the ages one increasing purpose runs,
And the thoughts of men are widened with the process of the suns.'

Every laborer in our field of the world's work is related to this reform, either as promoter or hinderance. The educational writer, editor, or lecturer has a very intimate and special rela-

tion to it, as he commands a larger audience and a wider influence. The Superintendents of Public Instruction, and other officers transacting the business of the schools, are greatly influential in their spheres. "The Relation of the County Superintendent to Educational Reform" will be considered in a paper to be read before the State Association of County Superintendents, at the semi-annual meeting this month, by a competent member of the body. The relation of the teacher to it is what we propose to consider briefly in this article. Under "teacher" we mean to include all grades, from the University President to the humblest worker in the district school.

The Teacher is related to Educational Reform,—

I. *As Discoverer.* This is his finest opportunity for contributions to the philosophy of education. "If we could obtain a distinct and full history of all that hath passed in the mind of a child from the beginning of life and sensation, till it grows up to the use of reason, * * * this would probably give more light into the human faculties than all the systems of philosophers about them since the beginning of the world."—(Dr. Reid.) No parent or teacher should suffer the wonderful phenomena of the gradual unfolding of infantile, childish, or youthful mind, to go on before him, without at least an effort to comprehend and record them. The materials for the exercise of the faculties that discover are ready at hand. In its cradle, at its plays and sports, in its graver conversation, its various acquirements and developments of natural powers, its recitations, and its moments of passion, grief, joy, or other emotion, the immature being is always exhibiting interesting and valuable facts to be observed and noted. A systematic observation of them, and collection of the resultant data from wide and varied sources, could not fail to lead to generalizations of great and permanent value to educational science and mental philosophy.

Few teachers could not also make substantial contributions to educational discovery from their experience. Better methods follow the knowledge of better principles; sometimes, though perhaps more rarely, principles before unknown are evolved from methods already in use. If each instructor who has put in practice an original and successful method, whether he have a clear

view of its underlying principle or not, should communicate it to his fellows, a body of facts would soon be collected of incalculable value. Instance the admirable method of instruction in Geography, happily noticed and recorded by a thoughtful editor in Flint, during his visit to the schools of that city, and, we hope permanently preserved in the "Practical Department" of this number of the TEACHER. The pages of all educational periodicals — the *Teachers*, *School Journals*, *School Visitors*, and the like — and the columns of the religious and secular newspapers, are, in general, freely open for the public statement of such discoveries. They will be hailed with gladness, and received with appreciation by others than educators.

II. *As Student of the Discovered.* The teacher should be of "the children of Issachar, that *have understanding of the times.*" It is a commonplace that he should be versed in the literature of the profession. But however much of the past of education he may be able to spare, he can not afford to be ignorant of the present. It is one of the most encouraging signs of the times that books on the various topics of education are multiplying, and that some of them represent substantial progress and real reform. Our professional magazines are more than ever basing their teachings in the principle enunciated by SPENCER, which was the early motto of this journal: "The true education is practicable only to the true philosopher." They are, or should be, as we have elsewhere had occasion to say, the sources and promulgators of novel and better views, and their book notices and departments of intelligence should include whatever of things new is proposed for the acceptance of the educational world. The teacher who would know his age, and be worthy of it, must read these. He will be the better prepared for the observation and thought which lead to discovery by his attentive study of the discovered.

III. *As Missionary.* We have before (in the October number of the current year) noted the fact "that the teachers and educational workers generally are very far in advance of the people, and must pause or move more slowly in the work of reform until the masses can be brought to a better comprehension and appreciation of it." To the teacher, in large measure, is

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committed the duty of labor among the people in behalf of educational reform. He is in more intimate communication with them than are others, and his opportunities are consequently superior. By the introduction of higher ambitions, a better moral and mental atmosphere, improved methods, text-books, and apparatus into his school; by conversation with the people at their homes and during their visits to his school; and in other ways which a willing mind will come to know, he may do good and permanently influential mission work in the cause of educational reform.

The teacher owes a faithful bearing of the responsibilities, and fulfilment of the duties thus indicated, to his profession and to his generation. The most hopeful outlook we take to the future is in the light of educational reform. In the coming years the mind will be more than ever the measure of the man. And his mental and moral stature will be conditioned by that of his teacher. "As the teacher, so the school." H. A. F.

EDITOR'S DEPARTMENT.

ACCORDING to our promise, each cash subscription received prior to the close of this volume, will be dated January, 1870; and each person thus subscribing shall receive the remaining numbers of volume fourth as far as we are able to supply them. In some cases the October number was not sent, because the edition was exhausted before the names were received.

Various amounts, ranging from $1.50 to $10.00, are due us from several subscribers. This is for value received, and we shall be accommodated if persons thus owing us will remit promptly.

The programme for the next meeting of the Association is of unusual promise. We are heartily glad to see on it the names of so many who are eminent in the profession. The session will open on the evening of December 28th, and will continue during the 29th and 30th. Let all who can attend.

The *Detroit Tribune* is so punctilious with reference to copying from its columns without giving credit, that we were not a little surprised to notice, in a recent daily issue, a short article taken bodily from the TEACHER, and used in a prominent place as original matter.

We are preparing a complete index to volume fourth, which will appear in our next issue. It will be sent gratis to any one whose subscription expires with this number.

This is indeed a practical age. Everything on the earth and in the air, music, poetry and painting, are made convertible into

bread and butter. The HELICON is yet to grind the peasant's corn. One of our cotemporaries, by way of inducing his readers to advertise, invokes the aid of the muse in the following touching strains:

> The way to build up a good business,
> Is to let the people know who you are,
> And what you have for sale, however frail.

Special attention is invited to the third stanza. "Here is richness." The structure is peculiar, and merits a special designation. We have the HORATIAN and the SAPPHIC metre, and we claim the honor of naming this the *Pattersonic.*

It seems a little singular that a first-class position like the Presidency of our University should remain so long unfilled. In most respects, the place is a very desirable one. No institution has a more honorable name, no one has a future which promises to be so brilliant. Within is perfect harmony, without are the most generous feelings in its favor. Its alumni are fast becoming the leading men in the State, and legislation will soon place it above every contingency of pecuniary need. There is a growing feeling that it is not necessary to send to New England for a man competent to administer the affairs of the University. It is but just to say of the acting President, that his administration so far has been most admirable. The students feel a profound respect for Prof. FRIEZE, and the general interests of the institution were never in a more satisfactory condition. At the time Prof. WELCH left the Normal School, a similar movement was made to procure some eastern notability. Prof. MAYHEW was finally elected Principal, and the wisdom of the choice has been fully justified. The school is doing better service than ever before, and is filled to its utmost capacity. For ourselves, we should be glad to see Prof. FRIEZE made permanent President of the University. His long and eminent services entitle him to this honor, and his tried ability gives the most perfect assurance of future success.

LITERARY NOTICES.—As a general thing the book notices in our public journals are a sham and a shame, evincing no care or labor, indeed affording no evidence that the writer of the notice

has even opened the work which he proposed to criticise. That such should be the case need surprise no one who is aware of the manner in which the book column is usually prepared. A person connected with the newspaper office takes an armful of volumes, turns his eyes over the cover and the title page, and in the course of a couple of hours, has prepared notices of perhaps a dozen volumes. It is risking nothing to say that nothing short of omniscience could enable him to say anything truthfully and pertinently about the books thus disposed of.

There are, of course, occasional exceptions. There are journals whose notices are not liable to these criticisms. And among these it seems just to mention the Chicago *Evening Post*. Its literary notices always exhibit marks of care, thought, patience and candor. Hence they are usually just and always valuable. The *Post* is one of the very few papers whose notice of a book we should rely on as a guide in making our purchases.

The Art notices of the *Post* are also remarkably thoughtful and suggestive, calculated to raise the standard of excellence in this department, and also to inform these who are not versed in the science and the literature of the fine arts.

We may be pardoned, perhaps, for feeling a little local and professional pride in the fact that our own State has given to the literary department of the *Post* one who was long and honorably associated with our noble band of teachers, Mr. SARA A. HUBBARD, for several years a member of the Faculty of Kalamazoo College.

An energetic effort is being made by Prof. PUTNAM, of the Normal School, Secretary of the Executive Committee of the Michigan S. S. Convention, to collect full and reliable statistics of the Sunday School work in this State. For this purpose he has addressed circulars to the County Superintendents, in pursuance of a resolution published in our November number. We trust he will receive every encouragement and all needed assistance from the Superintendents, most of whom are active Sabbath School workers, and all of whom have superior opportunities for the collection of the desired facts.

PRACTICAL DEPARTMENT.

TO ADD FRACTIONS.

A CORRESPONDENT writes as follows: "In the TEACHER for October was an explanation of the process of adding fractions, which, I think, was longer than necessary, and left the subject decidedly in the *fog*. I will give you here the one I require from my pupils. I wish to add $\frac{3}{4}$, $\frac{1}{8}$, $\frac{2}{7}$, $\frac{5}{12}$. Since these fractions have different denominations, in order to add them, I must reduce them to a common denominator. I know that, if I find a common denominator of these fractions, it must be such a number as will contain each of the given denominators; hence, if I find the least common denominator, it must be the *least* number that will contain each of them; but the least number that will contain each of them is their least common multiple; therefore, I will find the least common multiple of the given denominator and it will be the least common denominator. I find this to be 168.

"Now since the numerator of every fraction is such a part of the denominator as the value of the fraction represents, if I obtain a fraction with a denominator of 168, which shall be equal in value to $\frac{3}{4}$, I must take $\frac{3}{4}$ of 168 for a numerator; $\frac{1}{4}$ of 168 is 42, and $\frac{3}{4}$, which are three times $\frac{1}{4}$, must be three times 42, which is 126; finding the other numerators in the same way, I have $\frac{126}{168}$, &c., and their sum is ———"

Had our correspondent completed his explanation, we are not sure that it would be much *shorter* than our own. As to the *fog*, we will venture no opinion. By the way, we should be delighted to have our friend show us how to reduce fractions to a *common denominator*. We have never been able to do it.

Some of our schools have adopted a plan of which we highly approve—that of discontinuing the ordinary recesses. More mischief is done, more clothes torn, more colds caught, more school difficulties engendered, than at all other times. Especially in large schools, where several hundred children must pass in and out within several minutes, recesses prove a constant source of trouble. Under this arrangement the primary schools may be dismissed at 11:20; the secondary at 11:30, and so on. If the afternoon session begins at 1 o'clock, there is a good time allowed to go home for dinner. Wherever tried, the plan has worked to the satisfaction of all concerned.

STIMULI.—What English Grammar did SHAKESPEARE study?

"Look not thou upon the wine when it is red, when it showeth his colour in the cup, when it moveth itself aright." Account for the word "his."

Imagine a hole made through the center of the earth from one surface to the other. What would be the course of a ball dropped into it?

Derive *templum* and *tempus* from *temno*.

Each of two boys had 30 apples. One sold at the rate of two for a cent, and the other at the rate of three for a cent, and consequently, they, together, received 25 cents. On another day they put their apples together and sold at the same rate, *i. e.* 5 for 2 cents, and received only 24 cents. Account for the loss.

Translate *obliquo sidere* in Lucan's Pharsalia, Lib. I., v. 55.

FOR THE COUNTY SUPERINTENDENTS.—Visits to the schools may be more permanently profitable if something more tangible than spoken words is left by the visitor—especially when, as is often the case, the company of the Director to the school can not be secured. Why not have a neatly printed letter-head like this?

————————, 1869.

Mr. ————, Director of District No. ——, Town of ————:

The following is the result of my inspection of your school, school-house, out-houses, and grounds, made this day, to which your careful attention is respectfully invited:

Then should follow notices of such things, *and such only*, as the Director can remedy, if faulty, or, if faultless, with the commendation of which he will be especially gratified. It is well, also, to vary the above form a little, and prepare another slip for the teacher, containing criticisms and praises of such matters as come particularly within his purview. This, left behind, will be a permanent memorial of what may have been said to him, and is likely to be much more beneficial. H. A. F.

A METHOD IN GEOGRAPHY.—A veteran teacher and graduate of our State University, Mr. A. L. ALDRICH, now editor of the *Flint Globe*, visited the public schools of that city some weeks since, in company with Principal JONES, of the Ann Arbor schools, and published a detailed record of his observations there. He was, he says, "particularly impressed with the improved methods of teaching Geography," and gives the following statement of an exercise witnessed in the rooms of Miss ATCHISON, of the First Ward school: "The average age of the pupils was, perhaps, nine years. The exercises were wholly oral, no book being used, the black-board, the outline map and the inspiring manner of the teacher supplying its place. Whoever has attempted to teach Geography, has observed the difficulty experienced by children in pronouncing geographical names, and at the same time locating the places or divisions to which they belong. The method adopted in this room, which, by the way, we understand is original with the Superintendent [Prof. TRUESDELL], consisted first in writing the names of some particular divisions — rivers, for instance — upon the board, divided into proper syllables. The pupil is first expected to learn to spell and pronounce

these names, simply as words at first. This work is thoroughly mastered before any other step is taken. Then the attention of the learner is directed to the outline map, very simple, containing only the natural and political divisions, a few of the larger rivers, and some of the principal towns. The river corresponding to some name on the board is then pointed out, and the two ideas of name and locality are fixed in the mind. The mental process then becomes clear and well defined, no confusion arising from an effort to comprehend two difficult processes at the same time. It should be observed that only a few names, not to exceed five, are put upon the board at the same time. The rivers mastered, then follows another class of subjects, as the towns, mountains, seas, or lakes. Before a map is given up, every scholar is expected to be able to locate any town or division called for, and to spell and pronounce it accurately."

ORAL LESSONS IN GRAMMAR.

FIRST COURSE.

Lesson I.—(The object of this Course is simply to teach children to classify words as Nouns, Verbs, etc. The following words are supposed to be written on the board; and the attention of the class is directed to each by the pointer in the hand of the teacher.)

John.	Mary.		Thomas.
	Boston.	Detroit.	
Cat.	Horse.	Book.	Knife.

Teacher. (Pointing to the first word.) What is this? *Class.* John. And this? Mary. This? Thomas. This? Boston. This? Detroit. This? Cat. This? Horse. This? Book. This? Knife.

T. (Pointing again to the first word.) What do you say this is? *C.* John. What! Is it the *boy* John? No. Not the real boy John, but the *word* John. And what is this—the real cat that catches mice? No. It is only the *word* cat. Then what is this? The *word* Boston. And the others? The *words* Mary, Thomas, Detroit, Horse, Book, and Knife. Instead of saying the *word* John, Mary, Boston, etc., what might you say? The *name* John, Mary, and Boston. Then what are all these words? They are all *names*. Names of what? The first are the names of *persons*, the second of *places*, and the third of *things*. *T.* All words which are the names of *persons*, *places*, or *things*, are called Nouns. What are Nouns? Nouns are the names of persons, places, or things. Now tell me what this word (John) is. A Noun. Why? Because it is the name of a *person*. Can you mention any other nouns? Yes, James, Susan, Charles, and Eliza.

To morrow you may tell me five words which you are sure are Nouns.

(Of course this is designed merely to *suggest* a method of teaching Grammar. It must be varied to suit age and capacity. The object of the lesson is to develop in the child's mind the idea that these words are *names of persons, places, and things.*)

Book Notices.

ELEMENTS OF COMPOSITION AND RHETORIC. By SIMON KERL, A. M. New York: *Ivison, Phinney, Blakeman & Co.* 1869. pp. 409

PRACTICAL COMPOSITION. By MRS. MARY J. HARPER. New York: *Charles Scribner & Co.*, 1869. pp. 202.

The art of learning is two-fold. The pupil should reproduce as well as acquire. The first process is the complement of the second, and if not employed there can be no real scholarship. To recite, to explain an example, to demonstrate a proposition, to perform an experiment, are each acts of reproducing what has been previously acquired. There is a surprising difference between being shown how to do a thing and afterwards showing another how to do the same. The solitary student who merely *acquires* can not make such attainments as one who must make frequent recitations before teacher and classmates.

Essay writing has the same relation to the general culture of a pupil as class recitation has to a particular branch of knowledge. The scattered elements of knowledge derived from various sources must be gathered up and assimilated, and thenceforth nourish the whole mental being. The practice of composition should thus go hand in hand with the ordinary parts of school work. It should not be an exceptional exercise, occurring once in two weeks or once a month, but an every-day duty, like reading and grammar. "Reading maketh a full man, conversation a ready man, and *writing an exact man.*"

It may be noticed that the difficulty experienced in this art is not in composing, in putting together words and sentences, but in decomposing the complex subject of the essay.

Now that two really good books on this subject have been prepared, there is no good excuse for neglecting a matter of the first importance. The two works mentioned above are similar in purpose and in execution. Both cover the same ground, and in each the various subjects are presented clearly and progressively. MR. KERL'S work is the more elaborate, and is particularly valuable for the numerous models of style which it contains. MRS HARPER'S treatise leaves more to be done by the teacher, and is concise without being dull.

A LATIN READER. By WILLIAM F. ALLEN and JOSEPH H ALLEN. Boston: *Edwin Ginn.* Chicago: *Fred B. Ginn*, 1869. pp 307, 205.

The current declamation against the classics finds some apology in the antiquated and irrational way in which the ancient languages are pursued. The fault consists in spending weary months in memorizing paradigms,

rules of syntax, and innumerable exceptions, entirely disconnected from their significance and use. Many teachers of Latin and Greek spend their whole strength in grinding these abstractions into the minds of their pupils. They seem to have no higher ambition than to chant exceptions in gender, declension, and prosody. Of what use is the fact that certain nouns form the accusative in *em* and others in *im*? If it were the custom to speak or to write these languages, this knowledge would be useful; but even then it would be much better learned in another way. It should be recollected that it is the language, its literature, its revelations of the inner life and thought of those who spoke it, that is desirable, and not its grammar, its mechanical form. If grammar is to be studied as a science, it must be through language. So long as our colleges pursue a course which defrauds pupils of the real benefits of classical study, as most of them now do, the clamor against "inutilities" will be kept up.

The "Grammar" and "Lessons" by the same authors have been noticed in this journal. The method they embody is directly opposed to the course we have been condemning. At a very early period the pupil is put at translating; and so reading and grammar go on *pari passu*. When the pupil is thus able to read, it is a question of first importance what he shall read. Shall it be fragments of mythical history, or the master pieces of composition? Most authors prefer the former, but the Messrs. ALLEN the latter, and we think the choice a wise one. This Reader furnishes a select course in Latin literature; and the pupil who reads it will have really accomplished more than is learned at college in this department. The choicest selections are made from PHAEDRUS, CÆSAR, QUINTUS CURTIUS, NEPOS, SALLUST, OVID, VIRGIL ("POLLIO"), PLAUTUS, TERENCE, CICERO, PLINY, and TACITUS. This matter is illustrated by notes, grammatical and explanatory, and there is added a complete vocabulary. In plan and execution, in typography and binding, this is the most perfect Latin Reader we have ever seen.

A COMPENDIOUS GERMAN GRAMMAR. By WILLIAM D. WHITNEY, Professor of Sanskrit, and instructor in modern languages in Yale College. New York: *Leypoldt & Holt*, 1869.

A grammar written by so well-known and popular a teacher as Prof. WHITNEY is sure to attract attention. We have, therefore, given it a very careful examination, and do not hesitate to say that, in our judgment it is the best German grammar published in this country. Its rules for pronunciation are excellent, though we may differ somewhat as to the propriety of pronouncing the letters *b* and *d* at the end of a word like *p* and *t*.

Its rules of Syntax are expressed with accuracy and precision, and are, in fact, what all rules ought to be, reliable guides to the student. We feel quite certain that if the student will faithfully follow out the method of study which is commended in this grammar, he may promise himself to acquire, in a moderate length of time, a radical and profitable knowledge of the German language. We beg leave to differ, however, from our learned friend in his assertion, that "with the great majority of those who learn German, ability to speak is an object inferior in importance to ability to understand accurately and readily the language as written or printed." It

may be so in the East, but is certainly not so in the West. Here, German is studied more for practical purposes. Therefore a different text-book is wanted for such as wish to learn the German language practically.

ABRISS DER DEUTSCHEN LITERATURGESCHICHTE, von Dr. E. P. EVANS, Professor der neueren Sprachen und Literatur an der Universität von Michigan. New York: *Leypoldt & Holt*, 1869.

The author of this work, in making us acquainted with German literature, from the earliest times to our own, treats the great constellation of German master spirits in an affectionate yet candid spirit, doing justice no less to the lesser than to the greater stars. Each writer's name is given with a brief biographical statement, and then the titles of his works are cited, accompanied with a criticism, which shows a knowledge of German literature and a familiarity with the German language not often found among Americans. The amount of research, and, indeed, of scholarship, involved in the preparation of this volume, is such as to command the warmest recognition. It is as if the vast tract of time intervening between the epochs, were some region of the world, and our author had traveled there, sojourning in every part of it and holding communion with its men of genius and talent. The work is worthy of the high aim and established reputation of its author.

OUR EXCHANGES.

The Architectural Review and Builders' Journal (Philadelphia: CLAXTON, REMSEN & HAFFELFINGER), is one of our most esteemed exchanges. Besides its beautiful and elaborate designs for Churches, School Houses, Asylums, Cottages, etc., its general articles are of great value and popular interest. The December number contains a beautiful Lithograph of CRAWFORD'S *Statue of Freedom*. The price is $6 per year.

We invite attention to the advertisement of *Littell's Living Age*. It is a journal of unsurpassed excellence, and will prove a treasure to every one who would read what is best in foreign literature.

A magazine almost invaluable to every household is *Harper's Bazar*. Many times its cost will be saved to every family who will read it. Its leading articles are of interest to all classes of people, and are written in excel lent taste.

The *Atlantic*, *Putnam's*, *Lippincott's*, *Hours at Home*, and *The Galaxy*, are all magazines of sterling worth, and are a great credit to American literature. Every reader will do a wise thing to secure one of these journals for the coming year.

It is, perhaps, unnecessary to again express our indebtedness to the *Advertiser and Tribune* for news items relating to teachers and schools. For the fullness and accuracy of its news department, for the frankness with which it expresses its opinions, and for the high tone of its articles, it is equalled by no other political paper with which we are acquainted

EDUCATIONAL INTELLIGENCE.

MATTERS AT HOME.

THE University is very largely attended. Prof. FRIEZE is still acting as President, and many papers of the State urge his permanent appointment. Prof. COCKER'S work, entitled "Christianity and the Greek Philosophy," and Prof. WINCHELL'S "Sketches of Creation," will soon be published. The latter has issued in pamphlet form an outline of his proposed Final Report of a Survey of the State of Michigan, not yet completed, which promises to be a work of very great value. Prof. OLNEY is actively engaged on his forthcoming mathematical series, and Prof. WOOD on a book treating of mechanics and bridge building. Prof. EVANS has recently issued a German Reader. A notable improvement in the college curriculum has been inaugurated by Prof. FORD, in the delivery of lectures on Hygiene to the Senior and Junior classes. A square university cap, not unlike that worn in the English universities, has been adopted, and the Faculty promise to wear it, with the students. It is reported that they have decided to abolish the vacation of the Senior class between Class-day and Commencement. A new University holiday, however, has been instituted, the first of which was held on the 17th ult. It is to be known as "The University Day."

The Annual Catalogue of the Agricultural College exhibits a membership of Freshmen 28, Sophomores 27, and Juniors 13. The graduating class numbered 11. The next college term opens on the last Wednesday of February. A fine addition, including a spectroscope and other valuable instruments, has recently been made to the chemical and philosophical apparatus, at a cost of $600.

Nearly ten thousand teachers are said to be employed in the public schools of this State, of whom four-fifths are women.

ALLEGAN COUNTY.—The Board of Supervisors have voted the County Superintendent an allowance of 250 days, at $4 per day.

BARRY COUNTY.—Supt. PALMER reports the interest in school matters increased. Teachers are more abundant, and are paid about the same as heretofore. He is granting many more certificates of the second grade than usual, "teachers who have had experience beginning to think it almost a disgrace to 'hold only a third grade:'" He held a five weeks' training-class at Nashville during the fall, where the attendance was good, and an elegant

silver tea-set was presented him. His time is fixed at 275 days, at $3 per day, with $100 for incidentals.

BAY COUNTY.—Supt. CUMMING is editing a column of "educational affairs," weekly. He has recently published a valuable article on the library fund, exhibiting the fact that "the county has been organized some twelve years, and during the whole of this period not one dollar of the fines collected has been appropriated in accordance with legislative enactment." He has, however, secured provision for the payment of the arrears, by an order of the Board of Supervisors on the County Treasurer, to apportion the same to the districts.

BERRIEN COUNTY.—Supt. FORD reports a year of hopeful progress. Two new districts have been organized. No part of the country, with a trifling exception, remains unorganized for school purposes. Four new graded schools have been founded during the year. There are 183 schools in the county, employing 189 teachers. Fourteen new school houses have been put up, or are in course of construction, and as many districts are preparing to build. But one log school house is used. Apparatus has been procured in reasonable quantity. Directors' visits number 320, against 234 last year; Superintendents visits 231, against 208. The inspectors' reports of the year are in better shape. Rate bills are reported from only 43 districts, against 61 last year. The percentage of total attendance upon the schools is 78.3, against 73 per cent. The pay of teachers has noticeably increased. Two semi-annual meetings of the County Association, and nine institutes, were held during the year, with much success. Number of certificates granted, 323; 50 first, 110 second, 163 third grade.

The School Board at Bakertown, having employed as teacher of their winter school a man of notoriously bad character, who had been rejected by the County Superintendent, are to be made the objects of proceedings for the enforcement of the law. This is the first instance that has occurred in the county, and the superintendent proposes to make a test case of it, carrying it, if necessary, through all the courts.

The eighth number of the *Berrien School Journal* was issued last month.

BRANCH COUNTY.—Supt. LUCE reports "a year of unremitting toil." He has held twenty-six meetings for the examination of teachers, with 238 applications; 36 have been rejected, 9 have received first, 94 second, and 99 third grade certificates. The percentage of children enrolled is 84. He suggests a law for compulsory attendance to bring in the rest. There are five flourishing union schools, employing 38 teachers. Eighteen new houses have been built at an average cost of $1,550. Two institutes of a week each, have been held, with an attendance of 91. A normal class will be organized in the Coldwater Union School. A Teachers' Association has been founded, with a membership of 70. He has made 250 visits. The greatest evil he finds in the schools is the multiplicity of text-books.

Among the educational influences that bless Coldwater (and the State, indeed), we would chronicle the opening of the superior fine art gallery belonging to Mr. HENRY C. LEWIS, to the public, for whose accommodation he has built a suitable structure upon his grounds, at a cost of $5,000. This

is considered one of the finest private art galleries in the county. On the 5th ult. the pupils and teachers of the Coldwater public schools, by Mr. LEWIS' invitation, visited the gallery. It is open to all visitors on Saturdays.

CALHOUN COUNTY.—Hon. THOS. M. COOLEY, Chief Justice of the Supreme Court, delivered the first lecture in the course before Bell's Commercial College, Battle Creek, on the 11th ult. Subject—"The true men of business."

CLINTON COUNTY.—Supt. MUDGE states in his educational column that there are 132 districts in his county, six of which have graded schools, employing 18 teachers. Whole number of teachers required, 144; certificates, 152. He is preparing a full list of them for publication.

EATON COUNTY.—Prof. KEDZIE, of the Agricultural College, has commenced a course of lectures on chemistry at Olivet College.

Prof. R. E. SEELY, teacher in the Union School at Charlotte, died on the 12th ult.

Supt. TOWNSEND has issued the 6th number of his excellent *School Journal*.

GENESEE COUNTY.—The Flint *Globe* speaks highly of a recent oral examination of the High School class in Geometry, instructed by Prof. TRUESDEL.

The public school of Clio opened on the 2d ult., in a thoroughly repaired house and under favorable auspices every way. It is conducted by Miss H. S. HALE.

HILLSDALE COUNTY.—The recent catalogue of Hillsdale College indicates a total attendance of 533 students, with seven professors, and four teachers in special branches. The library numbers 3,000 volumes, and is increasing.

HOUGHTON COUNTY.—Supt. SIDNAM reports "much thoroughness" on the part of recent candidates for examination. Several Normal graduates are teaching in the county. An Institute was appointed for the latter part of November. He has only 30 days, at $5, allowed him for his work, and naturally concludes that he "can accomplish but little with that allowance." He promises, however, to expend much more time, though unpaid for.

Supt. S. is also Principal of the Houghton Union School, assisted by Miss LUCY P. FOOTE, Preceptress; EDW. SEYMOUR, WILLARD GETCHEYL, FRANCES ST. JOHN, HARRIET N. EASTMAN, PHEBA M. BALL, Intermediate Teachers; FLORENCE BRINKERHOFF, MARTHA J. PETTY, ANNA BOLAN, BRIDGET A. QUINN, and KATE QUINN, Primary Teachers. We are under obligations for a copy of his very creditable Report and Catalogue.

Mr. W. H. SABIN is in charge of the Hancock School, assisted by Misses HOLLAND and STEVENS.

INGHAM COUNTY.—A *nolle prosequi* was entered by the Prosecuting Attorney, at the recent term of the Circuit Court, in the cases of Prof. GASS and Miss HOWE, of the Lansing schools, prosecuted last winter for assault and battery in expelling a vicious pupil.

Iosco COUNTY.—The Union School-house at Au Sable is completed, and the winter term opened on the 6th inst., under the superintendence of Principal A. H. PORTER, formerly of Fort Atkinson, Wis., who has been teaching a select school in the former village for some time.

JACKSON COUNTY.—The fall term of the Jackson city schools closed on the 3d inst. The total enrollment is 1,056, with an average attendence of 84.43 per cent. The administration of Principal LAWTON is warmly commended.

Supt. BENNETT has held another Institute. Attendance, 100 teachers and visitors. He was assisted by Profs. LAWTON and WHITE, of Jackson.

KALAMAZOO COUNTY.—Supt. SMITH reports (about Oct. 20) 256 teachers examined since Oct. 17, 1868, when he assumed his office. Certificates granted, 256—8 first, 61 second, 167 third grade. Number of visits, 191; of days given to special instruction, 10.

LAPEER COUNTY.—Supt. VINCENT writes:

"During the last year I have been engaged 238 days, examined 265 applicants, granted 249 certificates (exclusive of this fall's examinations), made 211 visits, and traveled over 1,800 miles. We have 122 districts, 123 school-houses, and 7,020 children between the ages of 5 and 20 years, in this county. Out of that number 5,735 have attended school during the year. Average number of months of school, 5½. The Board of Supervisors changed the time and salary of the Superintendent of Schools from unlimited time at $5 per day, to 150 days at $4. A *hint to economy.*"

Principal TRIBE, late of Dryden, has taken charge of the Utica Union School.

LENAWEE COUNTY.—Supt. BATEMAN reports 168 districts; 12 graded schools; teachers required, 261; schools visited, 250; new houses, 6; cost of same, $20,000; certificates granted, 425—17 first, 175 second, 233 third. A normal class was held at Adrian 16 days. Commendable progress has been made in educational matters, and prospects are growing better.

On a motion made at a recent session of the School Board of Hudson, to dispense with the reading of the Bible in the schools of that city, the vote stood: two in favor of, three against the motion. The matter has been compromised by allowing children indisposed to take part in the opening exercises to remain away until their close, or to take no part if present.

The West Hudson Union School has procured an organ, through the exertions of Principal REYNOLDS.

A new school-house, costing $8,000, and adorned with a fine bell, has been completed lately in East Blissfield.

LEELANAW COUNTY.—Supt. HUTCHINSON granted, from June 1st to Nov. 14th, 32 certificates—2 first, 12 second, 18 third grade—to 6 males and 26 females. Two applications were refused. There are but 8 townships and 35 districts in the county; 24 school-houses—2 frame, 1 gravel, and 21 log. The Northport Union School house has rooms for three departments. Supt. H. visited each of the 20 summer schools. Teachers' wages range from $8 to $30 per month and board. The Northport Principal receives $50 and *boards himself.* Three schools are maintained by the Government on the Indian Reserve, which Supt. H. thinks "a great hinderance to educational and all other progress in this, the finest county in the State."

He has held no Institutes, but hopes to "make them practicable and profitable ere long." Fifty days, at $3, are allowed him.

MACOMB COUNTY.—Principal F. H. HERRING, who has conducted the Cassopolis schools with much success for the past two years, has taken charge of the Union School at Mt. Clemens. He writes that the present session opened with a full attendance. His teachers are: Miss L. MCGOVERN, Preceptress; Mr. L. D. CULVER, Miss M. WOOD, Intermediate; Misses L. GREEN and F. A. GILBERT, Primary. They occupy a fine three-story building, with six departments, and a library room. The school library numbers 500 choice volumes. A heliotellus has been added to the apparatus.

MONROE COUNTY.—Supt. WILLARD reports 117 school districts, 5 graded schools, 123 teachers employed this winter—54 males, 105 females—35 first, 89 second, 35 third grade. The schools were very thinly attended during the summer; with but few exceptions, the teachers were satisfactory. Supt. W. has 200 days at $4.

PHILIP MANN, teacher of the Lutheran school in Monroe, died very suddenly on the 6th. After attending to some ordinary duties, he remarked that he did not feel very well, and lay down upon a lounge, when he immediately expired. He leaves a wife and nine children.

OAKLAND COUNTY.—Principal ALLEN, of the Union School in Clarkston, distinguished himself greatly by his services in saving a hotel at a recent fire in that village, though we regret to learn that he was considerably burned thereby.

OTTAWA COUNTY.—Grand Haven is going on with the construction of a $30,000 Union School-house.

ST. CLAIR COUNTY.—A petition has been circulated and largely signed in the Catholic Church in Port Huron, asking the Board of Education to exclude the Bible from the public schools of that city. Some pupils have since refused to comply with the rule requiring its reading, and a resolution was passed re-enacting the rule. It is said that the matter will go before the courts. A correspondent of the St. Clair *Republican* holds up to public scorn, as an instance of meanness, the action of a man who charged a school district twenty-five cents for bringing an elbow of stovepipe two miles.

ST. JOSEPH COUNTY.—The Union School-house just completed in Constantine is considered one of the finest in the State. It seats about 600 pupils, and cost $35,000 to $40,000.

SAGINAW COUNTY.—Has 11,039 school children, with an average attendance of 7,268.

SHIAWASSEE COUNTY.—The County Teachers' Association held its first meeting at Corunna on the 29th ult. A constitution and by-laws were adopted. Supt. MANNING was elected President; Miss A. SINCLAIR, Secretary; Miss J. SINCLAIR, Treasurer. Resolutions were adopted favoring the maintenance of the present system of County Superintendents; urging teachers to more devotedness and application to their profession, and also discountenancing the custom of compelling teachers of country schools

to "board around" from house to house. Some interesting papers were read, and a lecture delivered by Rev. Dr. E. H. PILCHER, of Owosso, on "Some of the Methods of Teaching."

TUSCOLA COUNTY.—Supt. HILL reports a population of about 14,000 in this new county; attendance for the the year, 3,570; children of school age, 4,550; townships, 24; districts, 92; teachers' wages paid, $14,000. He has visited nearly all the schools twice, besides supplying a church. He occupied 116 days during the last year, at $5, which has been reduced to $4, "partly because of high taxes, and partly from political interest," not from any antipathy to the office or the officer. The Union Schools at Vassar and Caro are flourishing, and the educational interest good. A successful County Institute, with 61 in attendance, was held in October. The qualifications of teachers are much higher than before.

VAN BUREN COUNTY.—Supt. CLEVELAND reports 162 schools and departments in the county, including 10 graded schools with 34 departments, and about one-fourth of the children of the county in them. Number of children of school age, 9,552; in attendance, 7,896. Average length of schools, 6¼ months. He has made 235 visits, and written 300 official letters. Three Union School-houses have been built, and another is going up, costing over $10,000. Seven smaller buildings have been erected, and many repaired. Four graded schools have been established during the year, and one new district formed. The schools "have been very satisfactory—failures few." Many applicants for certificates have been rejected, his standard being 80 per cent., and the general average has been much higher. A commendable interest in the schools is shown by the people.

Principal HARROWER makes an interesting report of the Paw Paw Union School for the half-term ending Oct. 29th. The attendance has been exceedingly irregular—the total time lost during 37 days, by the 344 pupils enrolled, amounting to 18¾ years! He is hopeful, however, and promises his best efforts to remedy the evil. The High School numbers 57 members. The schools are wholly destitute of apparatus, without which, he justly says, "our claim to first-class school advantages will be a cheating farce."

The South Haven Union School has about 250 pupils, with constant additions. Another room has been fitted up for a primary department, and placed in charge of Miss GEORGIE WILLIAMS.

WASHTENAW COUNTY.—A late visitor writes to the press in glowing terms of Principal JONES and the Ann Arbor Union School. He found 214 pupils in attendance upon the Grammar Schools, under the instruction of S. V. RONIG, R. M. WELLS, Miss ABBIE A. POND and Miss SALLIE A. CRANE. The number of students in the High School is 238. The corps of instructors consists of A. H. PATTENGILL, HANNAH A. LORD, B. E. NICHOLS, ABBIE MIZE, ELIZA E. DOTY, Rev. EMIL BAUER and Miss C. A. SAGER. He further says, "Ann Arbor, though ranking ninth in size among the cities and towns of Michigan, stands only *third* in the number of teachers employed, and in the number of pupils in daily attendance, and also has the largest per cent. of children in the public schools."

The Dexter Union School is reported in a very prosperous condition, being filled to its utmost capacity. The lack of sufficient room will compel a large addition to the present building, or an additional building next year.

WAYNE COUNTY.—The County Teachers' Association had a session at Wyandotte on the 3d and 4th insts., for "a general interchange of ideas and methods," etc. Lectures by Pres. MAYHEW, Profs. SILL, BELLOWS, GOODISON, and others. Principal THOMAS read a paper on the "The Evils we Seek to Remedy."

City Supt. DOTY reports 27,039 (including 749 colored) children on the school census roll of Detroit, of whom only 7,511 are in the public schools, there being room for no more. The ratio of attendance has been reduced five per cent. during the year. Two new buildings are going up, however, and an addition has been made to the Trowbridge School. The teachers employed number 127. A plan for re-naming the schools is to be adopted. The Board of Education has appointed a committee to report upon a night school.

Principal THOMAS, of Wyandotte, sends an abstract of his second monthly report, showing an increase of one per cent. in attendance and a decrease of tardiness to about one-third that of last month. Average number belonging, 513; average number present, 454; do. tardiness, 3; per cent. of attendance, 88; number belonging at date, 541; number of visitors, 126.

Miss ISABELLA THIRKLE, a teacher in the Detroit schools, has recovered $1,500 from the proprietors of the Fisher Block for damages incurred by falling over the broken top of a scuttle in the sidewalk in front of that block, on December 28th last.

Capt. ANDREW J. ITSELL, formerly Principal of Union Schools at Grand Haven and Almont, has just figured as defendant in a breach of promise suit before the Wayne Circuit Court, brought by Miss LUCY M. ODELL. The plaintiff was shown to be not altogether without guile, but the jury found a verdict in her favor, with $800 damages.

[Our grateful thanks are due to the Superintendents and Principals who have favored us with materials for this month's summary of intelligence. We shall be glad to receive reports from others who have not yet been heard from. H. A. F.]

PROGRAMME

OF THE ANNUAL MEETING OF THE STATE TEACHERS' ASSOCIATION, TO BE HELD IN SAGINAW CITY, DECEMBER 28TH, 29TH AND 30TH, 1869.

TUESDAY EVENING.

7 P. M.—Discussion, jointly with the Association of County Superintendents. Question: "Should the State compel the attendance of children upon schools?"

Supt. J. S GOODMAN, of Saginaw, will lead the affirmative, and Prof. C. L. WHITNEY, of Muskegon, the negative.

WEDNESDAY.

9 A. M.—Business.

10:30 A. M.—Paper by DUANE DOTY, Supt. of the Public Schools of Detroit. Subject: "Suggestions to Teachers."

2 P. M.—Paper, by Professor PUTNAM, of the Normal School. Subject: "Relation of Teachers to Insanity and the Insane."

3:30 P. M.—Paper, by Miss HARRIET BARNES, of Mason. Subject: "Examinations at close of terms of Schools."

7 P. M.—Address, by Prof. FRIEZE, acting President of the University of Michigan. Subject: "Relation of Greek and Roman to Modern Culture."

THURSDAY.

9 A. M.—Paper, by Prof. DARROW, of the Normal School. Subject: "Methods of Teaching Greek and Latin."

10:30 A. M.—Paper, by Prof. TAYLOR, of Pontiac. Subject: "Prosody, with illustrations," (in prose and verse).

2 P. M.—Paper, by Prof. ESTABROOK, of East Saginaw. Subject: "The Bible in Schools."

3:30 P. M.—Paper, by Miss RUTH HOPPIN, of the Normal School. Subject: "A Women's College."

7 P. M.—Lecture, by Prof. GRIFFITH, of the Normal School. Subject: "Elocution."

The several papers will be followed by discussions of the subject presented in them.

By order of the Executive Committee.

T. C. ABBOT, *President of the Association.*

AGRICULTURAL COLLEGE, Dec. 8, 1869.

PROGRAMME

OF THE SIXTH SEMI-ANNUAL MEETING OF THE MICHIGAN ASSOCIATION OF COUNTY SUPERINTENDENTS, TO BE HELD IN SAGINAW CITY, MONDAY AND TUESDAY, DEC. 27TH AND 28TH, 1869.

MONDAY.

7 P. M.—General discussion. Subject: "The Public School System of Michigan—its Excellencies and Defects." [If the health of Father PIERCE permits, he will be presents and participate in the discussion.]

TUESDAY.

9 A. M.—Opening and miscellaneous business. Report of Committee on Superintendents' Records, etc. Supt. W. I. BENNETT, of Jackson.

9:30 A. M.—Paper on "Lectures, Institutes, and such other means as he may devise." Supt. JAS. F. COVEL, of Montcalm.

10:30 A. M.—Discussion on School Libraries. Supt. IRVING CLENDENEN, of Cass, will lead.

11 A. M.—Paper on "Normal Classes in the High Schools of the State. Supt. CALVIN G. TOWNSEND, of Eaton.

Afternoon, 1:30—Report of Committee on Nomination of Officers. Inaugural of the incoming President. Miscellaneous business.

1:45 P. M.—Report on the Township System of Organization for school purposes. Supt. DANIEL B. BRIGGS, of Macomb.

3 P. M.—Paper on "The Educational Needs of Michigan." Hon. C. B. STEBBINS, Deputy State Superintendent of Public Instruction.

4 P. M.—Paper on "The County Superintendent's Relation to School Reform." Supt. P. M. PARKER, of Oakland.

Miscellaneous business.

Evening, 7 o'clock.—Discussion, jointly with the State Teachers' Association. Question: "Should the State compel the attendance of children upon schools?" Supt. J. S. GOODMAN, of Saginaw, will lead the affirmative, and Principal C. L. WHITNEY, of Muskegon, the negative.

By authority of the Executive Committee.

Niles, Nov. 27th, 1869. HENRY A. FORD, *President.*

MATTERS ABROAD.

AMERICAN.

The eighth semi-annual report of the General Superintendent of Schools in the Freedmen's Bureau has just been issued, and is a document of much interest and value. The day and night schools regularly reported number 2,118, with 2,455 teachers, and 114,522 pupils; Sabbath Schools, 1,196; teachers, 5,457; pupils, 89,731. Of the pupils, 192,227 were slaves before the war. The freedmen themselves own 759 of the school buildings, and wholly or partly sustain 1,581 of the schools. There are 312 graded schools, reported to "rival many institutions of the same class in the North, of much longer standing." Seventeen industrial schools are also maintained. The pupils "show a commendable perseverance in the pursuit of knowledge." Average attendance, 78 per cent. The report is every way encouraging.

The American Union Academy of Literature, Science and Art has been fully organized. Dr. DRAPER has accepted the Presidency, and stated meetings are to be held once a month. Its object is to secure co-operation and concert of action in the advancement and diffusion of knowledge, to aid inquirers in any department of learning, and to promote the elevation of taste throughout the country. Ten departments have been organized.

Official catalogues report that there are now 550 young American students at the various German universities, and more than one thousand other American boys and girls attending the higher schools and educational institutions in Germany.

ARKANSAS.—A year ago there was not a free school in the State; now over a thousand teachers are at work under a free school system, instructing over 50,000 children. Teachers' wages are reported better than in Eastern States. In one Judicial Circuit, the taking of an educational journal is a pre-requisite to the granting of a teacher's certificate.

CONNECTICUT.—The new catalogue of Yale College shows a total of over 500 students in the academic department, and over 200 in the other schools. The sophomore class numbers 150. The students represent 27 States and 7 foreign countries.

The Judd Scientific Hall for Wesleyan University, Middletown, is commenced and will probably be finished within the next year.

GEORGIA.—The State Teachers' Association has just finished its session at Macon, and reported a plan for a common school system in that State. The plan has a liberal provision for the education of the blacks.

Education is being actively and permanently organized throughout the State. The Superintendent of the Savannah schools reports a prosperous year, with greater attendance and better teaching than heretofore. Atlanta is maturing a plan for a general system of public schools.

ILLINOIS.—County Superintendents of Schools were elected in this State on the 2d of November. In many counties there was considerable competition for the office, and "independent candidates" were not uncommon.

Is the secret of this the fact that $5 per day is now allowed for unlimited time, if only "actually occupied in the duties of the office?" We notice, by the last report of the State Superintendent, that a large fraction of the time of the County Superintendents is spent in "office-work."

The Normal University has graduated 118 since 1860. Its annual expenses are $27,449.91. It is estimated that $150,000 are expended per year in the town where it is located, by the members and attaches of the University.

A young teacher named ADELAIDE HERRICK, in the Chicago schools, is charged with causing the dangerous illness of a little boy named WILLIE ATKINS, by severely beating him with a rule across the head, neck and back, and then violently throwing him upon the steam-pipes. She has since been exonerated by the School Board of Education.

The State Association of County Superintendents met in Jacksonville October 12th, and had a good session.

A Normal School has been organized in Peoria County, under an act of the last legislature. It begins with forty pupils.

The buildings for the new State Normal School at Carbondale will cost at least half a million.

The salary of Supt. PICKARD, of Chicago, has been raised to $4,500 and an assistant given him. President EDWARDS, of the Normal University, receives $4,000. Several new school buildings have been ordered in Chicago.

INDIANA.—The State Normal School at Terre Haute will not be opened until the 1st of January, as the services of the new President can not be obtained before that time, in consequence of his intervening engagements. A preliminary institute is being held, to continue from Nov. 24th to Dec. 22d.

Miss MARY F. HOVEY, daughter of Prof. HOVEY, has been elected Professor of the German language and English literature in Wabash College, and will have general charge of the department for young women.

IOWA.—Miss JULIA C. ADDINGTON has been elected Superintendent of Public Schools in Mitchell County, over Mr. M. BROWNE, who ran on the regular ticket. She is said to have superior qualifications for the office. How will the young gentlemen who teach "the young idea" of Mitchell enjoy her examinations and visitations?

Prof. GILCHRIST, of the Normal School at California, Penn., has been doing much good work of late at Institutes in this State.

The Catholics of Dubuque are establishing separate schools for their children, on the ground that the public schools are godless and immoral. Yet they do not wish the Bible read in them!

The State has no Normal School. At the late session of the State Teachers' Association, a recommendation was passed that the County Institutes set apart one evening of each meeting for the discussion of this subject.

KANSAS.—The report of the State Superintendent of Schools for 1868-9 is out. Number of children between five and twenty-one, 76,150; enrolled in the public schools, 45,140; in other educational institutions, 2,169,—a falling off of very nearly half from the attendance of the year before upon these institutions; average daily attendance, 27,238,—not *forty per cent.* of the whole number of children of school age; average time schools were taught, five months; number of male teachers employed, 746; of female

teachers, 855 ; average wages of the former, $39.56 per month ; of the latter, $29.08. An extraordinary approach to equality of the sexes, in the particulars of employment and wages, is thus exhibited. There has been an increase of 250 school-houses, out of 953, during the year—that is, more than *a fourth* of the whole are new.

LOUISIANA.—The teachers of the public schools in New Orleans have not been paid for four months.

MAINE.—The Second Annual Meeting of the State Educational Association was held in Bath, Nov. 15th, 16th and 17th. The programme promised a session of much variety and continued interest. We have yet no reports of the meeting.

Two students of Bowdoin College were recently expelled, when a large number of their former fellow-students, dressed fantastically, escorted them to the cars with a procession and band, and cheered them as the train left the station.

The city high school building at Gardiner was totally destroyed by fire on the 7th ult.

MARYLAND.—The Peabody Institute at Baltimore has been the recipient of another $50,000 from Mr. PEABODY, making the total of his benefactions to that Institution $200,000. Literature, science and art join in mourning the death of the great banker and philanthropist, who expired in London on the 4th ult.

MASSACHUSETTS.—Prof. CHARLES WILLIAM ELLIOT was inaugurated President of Harvard University on the 19th Oct., and delivered a masterly address. He is a young man of 36 years, but of eminent attainments and distinguished blood, and an enthusiastic advocate of "the new education."

The State Teachers' Association met in Boston for its fourth annual meeting, October 21st, 22d, and 23d. It was divided into High School, Grammar School, and Primary School sections, meeting in separate places. Papers by Dr. BURNHAM, of Newton Centre, Rev. H. F. HARRINGTON, of New Bedford, Prof. GOODWIN, of Harvard College, JONATHAN KIMBALL, Esq., of Boston, and many others. Addresses and lectures by the President, Rev. Dr. NICHOLSON, Dr. EDWIN LEIGH, author of the new phonetic method, and others. Discussions of compulsory attendance and other topics.

A Horticultural School for women is to be opened in the vicinity of Boston as soon as the necessary funds are obtained. The number of pupils will be limited to 25, and they must be able to work in the garden or house as required ; but they will receive regular instruction in the school-room and at lectures. A matron will instruct the pupils in the various kinds of house-work. A competent farmer will see that farming operations are properly carried on, and laborers employed for all heavy work.

Prof. ESTY, of Amherst College, has just completed an extremely long and difficult computation of the orbits of the satellites of Saturn, a task never before accomplished.

Mr. HENRY MEYERS, a Williams College alumnus of 1869, is writing an account of the South American expedition which started from that college three years ago, and of which he was a member.

An "Educational Room" is a feature of Boston pedagogy. It is located at 129 Washington street, and regular semi-monthly meetings are held therein. The question under discussion on the 6th ult. was: "How many branches may a pupil profitably pursue at a time?" That set for the 20th was: "To what extent should teachers render assistance to their pupils?"

The great storm in New England, a few weeks since, wrecked the new and elegant Normal School building in Boston. It is estimated that the expenditure of $25,000 will be necessary to repair the damages.

The new Rice School-house, in Boston, was dedicated Sept. 23d, with appropriate exercises. Addresses were made by Mayor SHURTLEFF, CHAS. L. FLINT, L. A. WHEELOCK, Hon. A. H. RICE, Supt. PHILBRICK, and others.

Six State Teachers' Institutes were held between Oct. 4 and Nov. 15.

The grammar school building in Newton Center, worth $40,000, was destroyed by fire on the 15th ult. It is supposed to have been fired by an incendary.

To offset the Bowdoin folly noted above, we are glad to perpetuate the following: At a students' prayer-meeting at Wilbraham, Mass., the other evening, a purse of forty dollars was quickly made up to defray the expenses of a colored student who was about starting homeward to South Carolina, sick with consumption.

Amherst College has now 255 students. A boat crew has been organized by the three lower classes.

Professors HAGAR, BOYDEN, and DICKINSON, of the State Normal Schools, receive each a salary of $3,000, and Miss JOHNSON, of the Framingham Normal School, $2,500.

MINNESOTA.—The Convention of County Superintendents have expressed their opinion that their own offices and the State Superintendent's office should be filled by appointment, and not by popular choice.

MISSOURI.—A Baptist National Sunday-school Convention held a session, with large attendance and great interest, in St. Louis, during the first week in November.

Excellent things are reported of the working of the County Superintendency, in putting the school system into operation. Leading educators are earnestly pressing the establishment of State Normal Schools. A new educational magazine has been started at Jefferson City.

The public school library of St. Louis, established in December, 1865, contains 19,452 volumes.

The Hannibal *Courier* says: "There seems to be a mania in Hannibal for marrying lady school teachers, especially those employed in the public schools. Within a short time five have been married."

NEW HAMPSHIRE.—At Dartmouth there are 418 students, including all departments. This college has now thirty-eight one thousand dollar scholarships.

NEW JERSEY.—Burlington has a new High School for colored children.

The Halstead Observatory at Princeton is nearly completed. Ex-President MCLEAN is writing a history of the college.

All the Newark schools have German classes.

NEW YORK.—The public schools of New York city are educating 87,234 children, according to the record of attendance on the 29th of September; average attendance, 80,379. There are 1,947 teachers, exclusive of principals. About 8,000 persons attend the evening schools, in the proportion of two males to one female.

Hon. VICTOR M. RICE, the late efficient State Superintendent of Public Instruction, died in Oneida on the 31st ult. He was not a man of great scholarship, but had eminent organizing and executive ability, which are more needed in a State Superintendency than scholarship.

Dr. PETERS, of Hamilton College, discovered his ninth asteroid, Oct. 9th, raising the entire number known to 109.

President WHITE, of Cornell University, has promulgated an order to the effect that drunkenness shall be considered a good and sufficient cause for expulsion from that institution, no matter whether the offense be com mitted during term time or during vacation, in Ithaca, or elsewhere. Students are in attendance from all the States in the Union but three, and from Austria, Prussia, England, Hayti, Bermuda, and Canada.

The Board of Education of New York City are authorized to expend $3,512,214 upon the public schools during 1870. They propose, however, to expend but $2,382,000.

The New York Association for the Encouragement of Science and Art has written to the Board an important letter on the subject of physical instruction.

OHIO.—The long-meditated outrage of excluding the Bible and sacred song from the public schools of Cincinnati, was consummated on the 1st ult., by formal vote of the Board of Education. An injunction was promptly served, however, and the injury may yet be averted. It is said that of the 20,000 pupils in the Cincinnati public schools, not more than 1,000 are Catholics.

The Sunday-school Union of the Methodist Episcopal Church held its anniversary in Columbus, Oct. 30th to Nov. 3d. The anniversary sermon was preached by Dr. E. O. HAVEN, of the Northwestern University.

The city of Sandusky has just completed the finest High School building in the State.

At the Crawford County Teachers' Institute, a resolution was passed urging the examiners to refuse to grant a second six months certificate.

PENNSYLVANIA.—Rev. Dr. BITTINGER, formerly professor of Intellectual Philosophy in Middlebury College, Vt., has been elected to the Presidency of Washington and Jefferson College.

Philadelphia has expended a million of dollars recently on school buildings, and now wants to borrow a million more.

The Philadelphia night school for artisans has opened with two hundred and fifty pupils, all over eighteen years of age. They study mathematics, mechanical and architectural drawing, business forms, penmanship, natural philosophy, chemistry, and the constitution and practical management of the steam engine.

RHODE ISLAND.—The Rhode Island *Schoolmaster*, after six months' suspension, has been revived under favorable auspices.

SOUTH CAROLINA.—The report of the Charleston public schools exhibits a registry of 4,425 children—1,653 colored. One of their finest buildings has been destroyed. The Normal School is still maintained, and all the schools are reported in a more flourishing condition than ever before.

VERMONT.—The town of Burlington has raised thirty thousand dollars for the University, and, in consequence of this liberality, fifty thousand more have been pledged. A bill giving women who are tax-payers the right to vote in school district meetings was recently lost in the Legislature, by a vote of 123 against 92.

VIRGINIA.—The first annual report of the Board of Education of Petersburg exhibits the successful working of the free-school system there.

Miss CAROLINE F. PUTNAM, one of the most indefatigable teachers among the freedmen, has recently been appointed Postmistress of Lottsburg. On the first day of her service she had to force the mail-bag from the stage-driver by a threat of reporting him to Washington if he did not deliver it at once.

WISCONSIN.—The Board of School Commissioners of Milwaukee is engaged in an active controversy with the Germans, on the subject of vaccination in the public schools. The latter oppose it, and have prevailed thus far. The *Wisconsin* says that Milwaukee long ago kicked the Bible out of her public schools, and has progressed so far since that the teacher in the Ninth Ward School daily curses his pupils, not with a little "swear," but with enough of them to use up ten em dashes in a single breath.

FOREIGN.

The eighteenth meeting of the General Association of the German Teachers, which took place in Berlin, May 18th, 19th and 20th, was one of the most important ever held. The place of assembly in itself attracted especial interest. Since 1854, Prussia has been reactionary in matters pertaining to popular education, and the Association of German Teachers is eminently progressive and liberal. Great expectations were awakened by its meeting in the capital of a State which strives to subordinate the school to State and Church. Over 4,000 members were in attendance, an especial feature being the presence of a large number of female teachers.

The following were the lectures given in the main assembly:

1.—"Prussian and German Pedagogy," L. W. SEYFFARTH.

2.—"Science and its Teaching is Free," TH. HOFFMANN.

3.—"The School in the Light of the Educational Principle," W. LANGE.

4.—"The Importance of the Reader in Common Schools," A. LUEBEN.

5.—"Capital and Labor," TIEDEMANN.

SEYFFARTH laid down as the fundamental principle of Pedagogy the "education of man according to his God-given powers to the end laid down for him by his Creator." True Pedagogy rests on a religious basis, but holds the sectarian character of the school and its control by the Church to

be obsolete questions. It demands supervision of the school according to pedagogical principles. He sketched the first beginnings of the Prussian school system under Frederick the Great, and the succeeding reaction under an orthodox Lutheran ministry. This period of reaction had not closed, yet the future is full of hope.

Dr. HOFFMANN summed up his address in the following theses :

1. The arbitrary limitation of the teacher's education, hitherto in vogue, must be abandoned.

2. The choice of the method and the means of instruction must be left to the teacher.

3. The school law must fix a minimum of common school education, but should hinder no school from going beyond it.

4. The control of the school should be conducted with the assistance of educators.

5. The school is not a party matter, but belongs to the entire people.

6. The best corrective in school matters is unlimited publicity.

Dr. W. LANGE demanded that a greater prominence be given to the educating side of teaching as contrasted with mere instruction. He pointed out the evils resulting from an early commencement of professional education at the expense of general culture.

Director LUBER objected to the attempt to make the reader an aid to scientific instruction. It should contain the best products of the nation's literature. In the discussion which followed, this view met with general assent, Dr. KEFERSTEIN especially contending that readers must be prepared from an ethic and esthetic standpoint, and that in the higher classes not fragments but entire classics should be studied. Dr. PETSCH also held that instruction in "real knowledge should never set out from the reader; that would give the most miserable medley possible."

Some amusement was occasioned by the mission teacher HILDEBRAND, in view of some sharp criticisms upon the course of the Prussian government in forcing an objectionable reader upon the Hanoverian schools. He exhorted them to have respect for the law, and declared that the true German reading book was the bible.

TIEDEMANN'S lecture enforced the importance of teaching political economy in schools.

There were several auxiliary meetings, among them one of female teachers, which resulted in the formation of an Association of Female Teachers.

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THE

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EDITOR:
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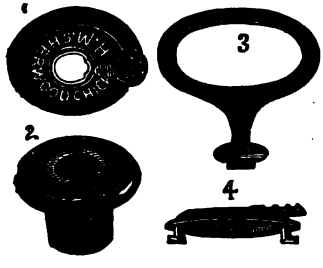

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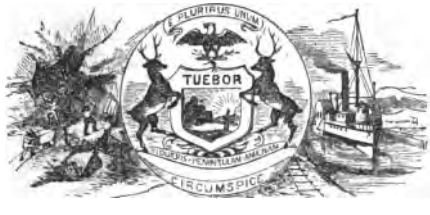

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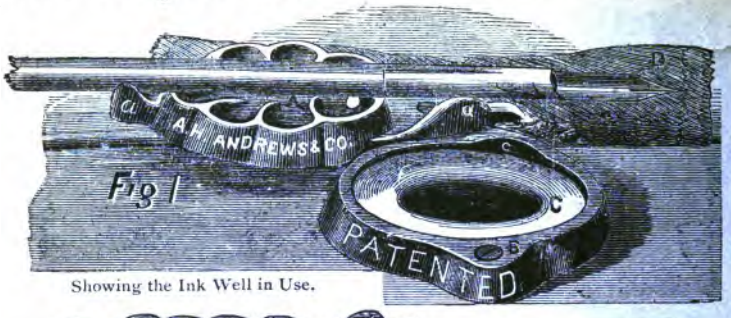
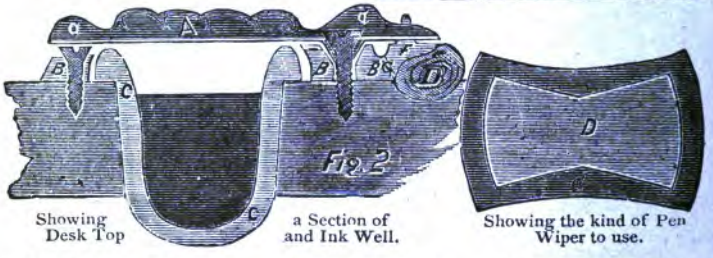


Showing the Ink Well in Use.



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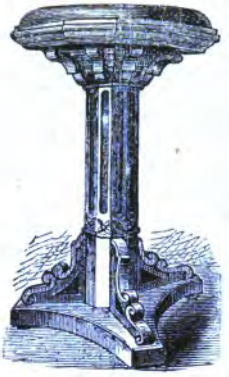

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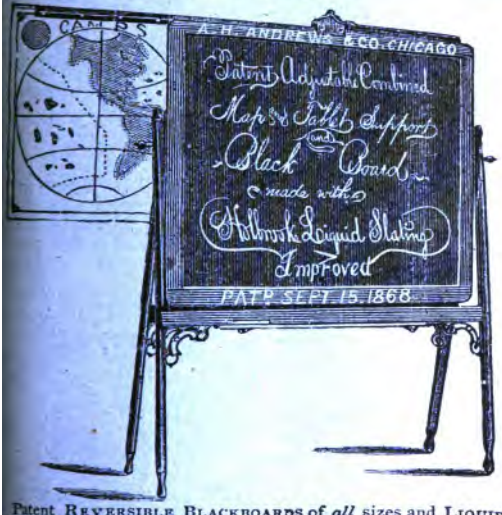

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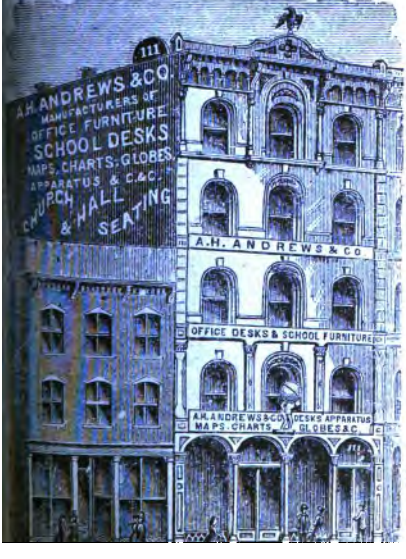

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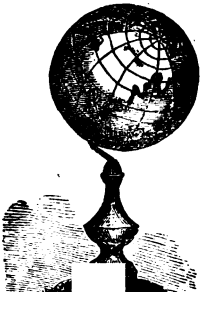

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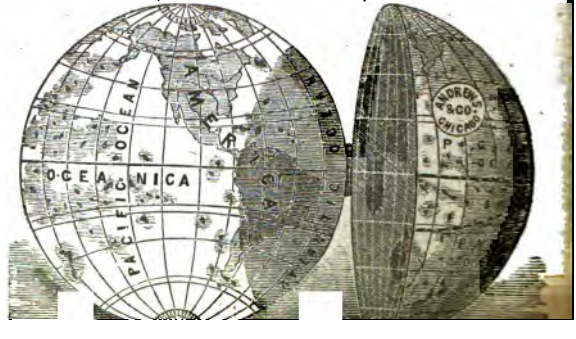

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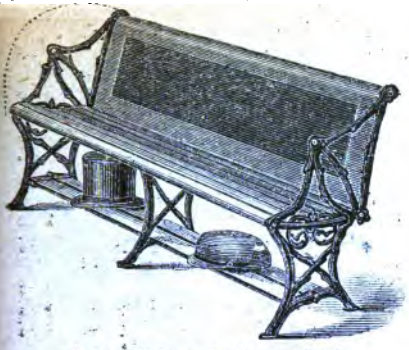

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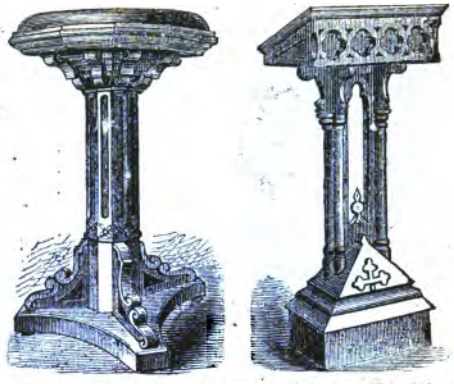

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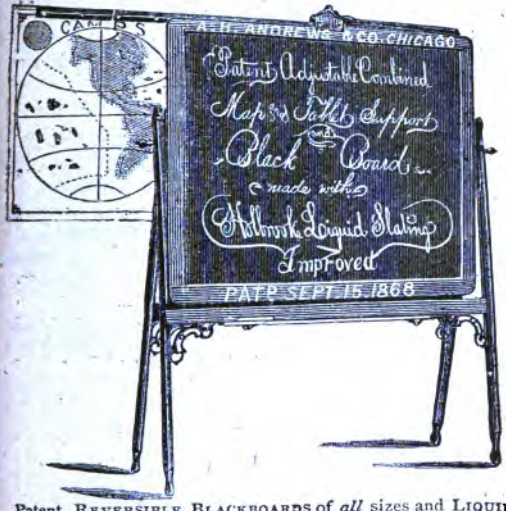

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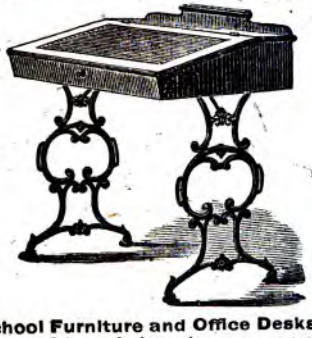

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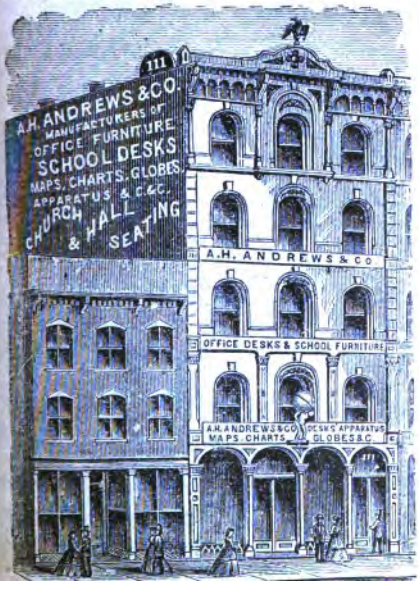
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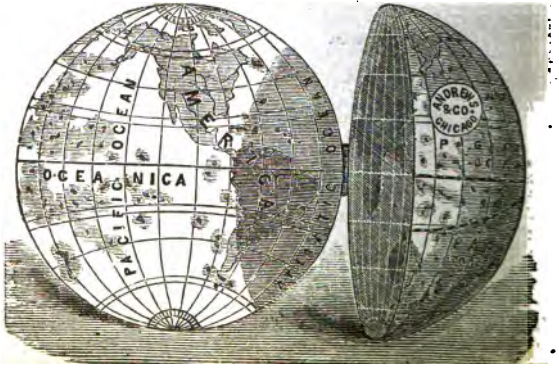

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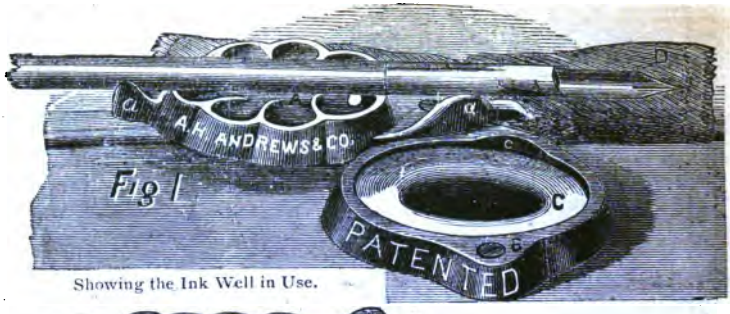

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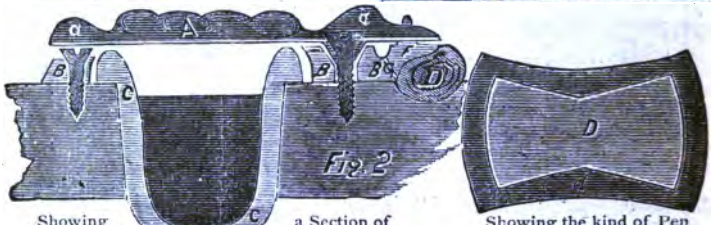

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					STATIONS.	Going East.				
Mail.	Express	Express	Express	Mls		Mls	Express	Mail.	Express	Express
8 30P.M.		8 30 A.M	5 15 A.M.	0	ar **Boston** lv	1104	12 00 M.	6 00 A.M		5 00 P.M
		10 05 "	6 45 "	44	Worcester	1060		4 15 "		3 35 "
		12 10 P.M	9 00 "	98	Springfield	1006		1 50 "		1 30 "
8 00 P.M	6 30 P.M	12 00 M.	8 00 "		**New York**	1045	10 30 P.M	6 00 A.M	7 00 A.M	3 15 "
7 15 A.M	12 00 A.M	6 00 P.M	1 15 P.M	200	**Albany**	905	4 40 P.M	9 20 P.M	1 40 "	9 40 a.m
		5 50 P.M	1 00 "		**Troy**		4 50 "	9 30 "		9 50 "
8 10 "	12 45 A.M	6 45 "	2 00 "	217	Schenectady	887	4 00 "	8 40 "	1 00 A.M	9 00 "
11 40 "	4 22 "	11 03 "	5 20 "	309	Rome	794	12 30 "	4 50 "	9 30 P.M	5 25 "
1 30 P.M	6 00 "	12 35 A.M	6 35 "	348	Syracuse	756	11 10 a.m	3 30 "	8 10 "	4 15 "
4 40 "	9 45 "	3 40 "	9 35 "	429	Rochester	675	8 25 "	12 40 "	4 50 "	1 35 "
7 30 "	12 25 P.M	6 20 "	12 00 M.		**Buffalo**	622	5 45 A.M	10 00 A.M	2 20 "	11 20 P.M
	1 00 P.M	6 40 A.M	12 20 "		ar **N Falls** lv				1 25 P.M	10 05 "
7 50 "	1 10 "	7 00 "	12 20 "	506	lv **Sus Brar**	598	4 15 "	8 20 "	12 55 "	9 25 "
8 22 "	1 35 "	7 25 "	12 45 "	517	St, Cath'ines	587	3 40 "	7 50 "	12 25 "	8 55 "
9 50 "	2 50 "	9 00 "	2 20 "	549	**Hamilton**	555	2 30 "	6 40 "	11 20 A.M	7 30 "
		10 12 "		568	Harrisburg	536			10 20 "	6 20 "
11 05 "	4 00 "	10 43 "	3 35 "	578	Paris	526	1 10 "	5 15 "	10 00 "	5 55 "
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	11 00 "	5 50 "	10 10 "	228	ar Det.J'n lv	372	8 25 "		2 20 "	9 25 a.m
7 20 A.M	10 20 P.M	5 25 P.M	11 10 "	735	lv **D'troit** ar	369	6 30 "	5 55 P.M	3 45 A.M	8 30 "
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	8 05 A.M		5 55 P.M		ar **Laus'g** lv		10 50 A.M		7 25 P.M	
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	4 25 P.M	9 25 A.M		1029	ar **Joliet** lv				3 00 p.m	8 00 a.m
8 00 "	9 00 A.M			996	Gibson's	108		6 03 "		
8 20 "	9 18 "	5 45 "	9 17 "	1005	Calumet	99	8 43 "	5 45 "	5 13 "	9 45 P.M
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